Croonian Lectures

ON THE

INFLUENCE OF THE CIRCULATION ON THE NERVOUS SYSTEM.

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LECTURE II.—PART II.

IF, indeed, we cannot prove by post-mortem examination that a person has died from congestion of the brain, the evidence which would lead us to declare the existence of such a state during the person's life ought to be the more conclusive. Let us now inquire if this is truly the case. I have already asked your attention to the degree of turgescence of the veins of the head and face, indicating a like degree of pressure within the veins of the cranium which is met with frequently under various circumstances, and which does not give rise to serious or important symptoms; strangulation becomes very decided and obvious before any serious cerebral effects result from it. Hence we must not suppose or assume its presence unless we can see the veins evidently turgid, and although total stoppage of the jugular veins by ligature will produce speedy death, yet inasmuch as we thereby deprive the brain of its blood circulation so that life ceases with the cessation of vital changes in the respiratory centres, we have here a set of consequences which ensure death apart from pressure of venous blood upon the brain. Indeed I have never met with any example in which venous pressure upon the brain, as distinguished from the effects of carbonic acid poisoning, has produced grave symptoms. And I advanced the example of caisson pressure as affording an instance of extreme degrees of intravascular pressure of blood upon the nervous centres, uncomplicated with a venous state of the blood, and it was shown that under a pressure of three atmospheres continued for as many hours, no unpleasant results were experienced, so far otherwise, indeed, that the labourers worked more buoyantly in the denser air. It was when the pressure was taken off that trouble came. As one more example to show how well an obvious amount of arterial pressure is borne by the brain, let us take the case of unusually violent action of an hypertrophied heart. It is not, of course, to be supposed that in all or most cases of cardiac hypertrophy an excessive action of the heart would tend to congest the brain, because for the most part the heart enlarges in order to overcome an obstruction at its orifices or an obstruction in the capillary system. In these cases the hypertrophy does but follow after, and usually far after, the requirement which it subserves, and the large labouring heart is all too feeble for its extra work. But we meet occasionally with more rare examples wherein a large heart certainly does appear to exert an exaggerated force throughout the vessels. A striking example of this is in the clinical ward at Guy's Hospital, in the case of a man of early middle age who has regurgitant aortic valves and a very greatly hypertrophied heart, which raises the præcordial region, and in its beating shakes forcibly the lower part of the chest. The innervation of the heart is here deranged as if by a touch of exophthalmic cachexia superadded, for the heart's action is very rapid, and digitalis in any doses I dare give shows no power of reducing its frequency. The effect of all this in the temporal and radial arteries is remarkable; they are bent into a meandering form and are tense to touch, each beat of the heart making them spring rather sharply. Those who witnessed the force evidently at work within these arteries, and conceived the same action as going on within the cranium, formed the impression that the arterial strain must be excessive there, allowing all that the bend of the carotid canal could do to moderate the distension of the arteries in their transmission through the base of the skull. Yet this man said that his head was quite free from unpleasant sensations, and when I induced him to cough and otherwise to use strong pressure of his expiratory muscles so that the veins rose in his neck, the heart beating meantime still more strongly and quickly with his exertion, no ill effects occurred in the way of morbid sensations in the brain. This example is not a very rare one, although the coexistence of rapid action of the heart with great hypertrophy and absence of evidence of aortic obstruction offered a combination calculated to put great stress upon the interior of the vessels, and the strain was visibly great in the superficial arteries. Indeed, under similar circumstances, especially in cases of exophthalmos, we witness an extent of more or less violent and certainly obvious over-action in the cervical vessels, producing no noticeable discomfort in the brain, and certainly nothing in the nature of serious and important symptoms.

So that, as we pass to consider what clinical evidence there is to show that serious and important diseases are due to cerebral congestion, we do so having first recognised that visibly forcible arterial action does not produce these symptoms, and visibly great venous congestion does not produce them, and post-mortem evidence is incapable of proving that cerebral hyperæmia was present before the act of dying. Still pursuing the question before us, the next thing will be to learn what evidence is offered in the symptoms ascribed to cerebral congestion to show that fulness of the cerebral blood-vessels causes the attacks described under that name. If we look at the descriptions of the supposed disease, we find it has all the advantage of being well portrayed by the best describers, including a most trustworthy and universally trusted authority upon the subject of brain diseases in general, so that we may fairly assume that all that can be said for the disorder is well and fully said. The disease would merit such treatment if it is indeed capable of appearing in no less than four distinct and very widely diverse manifestations, and if in each of these it may constitute an obscure and rapidly fatal malady. The symptoms of such a disease must merit the closest attention, and so I may ask you to let me now give a full account of the symptoms described as those of one of the forms of congestion of the brain; it is called the convulsive form, and these are the symptoms given: "There are usually the premonitory signs of congestion, but these may be very slight. There may be no forewarnings, and the patient may be seized during sleep or while making some unaccustomed effort. When the attack occurs during sleep, it is difficult and sometimes impossible to say in what manner it commenced; but when it has come on while the patient is awake, and friends are around him, it has been usually observed that much discomfort has preceded it for a few seconds, minutes, or hours. A tight cravat worn while making undue exertion, a sudden alarm, or an indigestible meal rapidly swallowed, may be the immediate antecedents. The patient more or less suddenly becomes confused, then apparently half unconscious, makes some unintelligible sounds, turns red and then blue in the face, staggers for support, looks round him wildly and imploringly, and then sits down or falls down convulsed, and a paroxysm epileptiform in character supervenes. From this he recovers partially, exhibiting great confusion of mind, headache, muscular feebleness, and sometimes partial paralysis of one side or of one limb. The attack is occasionally followed by quasi-maniacal excitement lasting from half an hour to three or four hours; after which the patient becomes exhausted and falls into a heavy sleep. From this state he may recover, or during sleep a second or third attack of convulsions may come on. When congestion of the brain has assumed this convulsive form, the patients, so far as my own experience extends, have usually been in middle life and have recovered. But in other cases, when the age has been further advanced, the attacks have recurred more frequently, the intervals between them have become of shorter duration, and the patients—less sensible and less reasonable after every paroxysm—have presented the appearance of those whose attacks have been apoplectiform at their commencement." This description, coming from the pen of a masterly describer, puts vividly before us the condition depicted, but that condition appears so exactly like epilepsy in a plethoric person that one is rather puzzled to detect a difference between this convulsive form of congestion of the brain on the one hand and epilepsy in such a person on the other, and one gladly turns for guidance to the directions for diagnosis, which tell us that "from epilepsy the diagnosis may be made by a consideration of the previous history; in the one there have been the premonitory symptoms of congestion of the brain; in the other no such phenomena have presented themselves;

in the former the patient is usually of middle or advanced age, in the latter he is young and is either under twenty years of age or has not far exceeded that period of life; in the one the period of most marked congestion is at the moment of seizure, in the other congestion of the face and head is most marked as the attack is passing off; in the former there may be some moaning sound, in the latter the epileptic cry; in the one there is the sudden onset of an acute disease, in the other the attack of a chronic malady." Thus it appears that the points of distinction in the attack are the middle or advanced age of the patient, the comparison of the colour of his face in the beginning and in the subsequent course of his fit, and the moaning sound in congestion as compared with the "epileptic cry" in epilepsy.

As to the latter point we, however, find the same distinguished authority speaking thus, in an admirable description of epilepsy itself: "Others do not cry, but emit a moaning sound, which is, as it were, squeezed out of them by the quasi-tonic contraction of the muscles of the chest." So that the moaning sound does not help us if we bear in mind the account of true epilepsy. Again, as to age, the same full and excellent account of true epilepsy informs us that a considerable proportion of first attacks occur about the fortieth year of life; so that the age of the patient would appear to be no valid criterion, and then the only thing remaining is the play of colours in the patient's face during the fit. Thus the convulsive form of congestion resolves itself into an attack which is exactly like epilepsy, except in the plethoric appearance of the patient. But are we, then, to suppose that plethoric persons don't have epilepsy? If this is not the supposition, how are we to deal with the case of a red-faced person who should have a true epileptic fit? How should we distinguish between such an attack and an attack of congestion of the brain? One looks in vain through the description for any criterion. There are all the stages of epilepsy—the bluish tinge appearing on the red of the face, the groan, the fall, the struggle, the stupor, and even the final, perhaps almost maniacal, excitement at the close. Even the tight cravat and the full meal which appear in the description of congestion do not really help us, because the true epileptic might have on a tight cravat or might have had a full meal. The evidence, then, of congestion of the brain is utterly worthless, unless you assume that plethoric persons do not have epilepsy, and that after a full meal or in a tight cravat epilepsy is not epilepsy. But the question whether such persons have epilepsy is not even raised by the description which changes the whole fundamental pathology of the seizures, because the sufferer's face is red, and he has just had his dinner. I have quoted from the writings of one who is so entirely master of the subject of nervous diseases that the evidences in favour of congestion of the brain would certainly all be fully and fairly stated in his description of it. Yet, surely, we have seen but very trivial ground for raising the convulsive form of congestion of the brain as a distinct kind of disease; and we further have even some proof of a positive kind to show that you cannot judge of the amount of blood in the brain by the amount of blood in the face. At least in sleep we know the brain to be pale. Yet in sleep the face is more congested than it is under ordinary conditions when awake. If you look at a sleeping person you may commonly observe everywhere about the head signs that would show congestion. The contracted pupils, the suffused conjunctiva often causing an excess of secretion from the mucous surface, or the well-known puffy state of face and eyelids found in the morning in cases of Bright's disease and other conditions. The reddened and perspiring state of the skin, conspicuous in many people in deep sleep, and often wetting the pillow in phthisis. Yet, in spite of all these signs of congestion outside the cranium, the brain within it is shown to be pale in sleep. So far, then, from redness of face proving congestion of the brain, the best known instance bearing on the question shows the brain to be paler when the face is more congested than the average.

The importance of the question whether, as asserted in some text-books, disease and death are really due to a rush of blood into the vessels of the brain, or whether, as I believe, no serious symptoms or ill results are produced by blood rushing into or pressing within the bloodvessels of the brain, will, I trust, justify me in pursuing the examination of the asserted symptoms of cerebral congestion, still searching for evidence that these symptoms are due to congestion of the brain. Yet as to the form of the disease that is called apoplectiform cerebral congestion, I will not go into detail, because the kind of attack of sudden insensibility which has long been known by this name has been so thoroughly treated of by the late Professor Trousseau, and by him was so entirely well proved to be really epileptic, that I need only refer for evidence to Trousseau's lecture upon the subject. In that lecture he says: "During the first years of my practice I saw a pretty large number of cases of apoplectiform congestion; but for a long time I have not seen any. Yet other medical men see as many as before. Let us therefore inquire on whose side the error lies." And then he gives proofs of the epileptic nature of such attacks, which I think so convincing that they need only to be read to clear up any doubt upon the matter. It is perhaps due to Professor Trousseau's influence that the most modern English teaching is coming round to the same view, as shown in the most recent and one of the best of our text-books, in which we find it written: "The true apoplectic attack in which the patient falls down suddenly comatose is now generally admitted to be epileptic." As a small further contribution to the previous evidence upon the epileptic nature of apoplectiform cerebral congestion, I will only point to one feature in descriptions of the attack, and that is, "the pulse at the moment of attack is sometimes suspended at the wrist." Of course it is plain that suspension of the pulse would not be likely to produce congestion of the brain, and, indeed, it is clear that suspension of the pulse must cause anæmia of the brain. But I will bring forward some facts in my next lecture which will, I trust, show that suspension of the pulse accompanies and marks the onset of attacks of epilepsy, and is the cause of paleness of the face in the epileptic onset. I need hardly say that the question at issue is one that practically is important. For if the attack is epileptic it calls upon us for remedies and regimen such as reduce the general excitability of the nervous system, and especially for specifics such as potassium bromide. But if the attack is indeed congestion of the brain, then it calls upon us for local treatment of the head more or less of the nature of depletion.

If we seek in the two remaining forms for evidence that the disease is really due to congestion of the brain, we are met with proof to show that the contrary is really the case. The characters of the third or "febrile form" are those of an attack accompanied by marked elevation of temperature and general pyrexia, dull oppressive headache, &c. Recovery is said not always to be observed. "The distress may persist, there may be alternately convulsions and delirium, or there may be changes from over-excitement to drowsiness, the latter gradually becoming relatively more marked until the patient passes into a state of stupor from which he may never rally." Now, if such a group of symptoms were to come upon a healthy person it is a fair question whether the medical attendant would be well advised in resting satisfied with an opinion that the case is one of congestion of the brain. If the attack ended fatally would he not have to inquire which of the eruptive fevers, or what form of blood-poisoning, had seized and killed the patient without allowing time for the development of the distinguishing characters of the attack? In every case in which I have known a healthy person fall into febrile coma, that person has proved to be suffering from a definite disease which needed to be discovered. For example, a little girl at Tottenham, having precisely these symptoms, was said to die within twenty-four hours of "congestion of the brain." Scarlet fever appeared in her sisters within twenty-four hours more, showing what was the matter. A man approached very near to death, being quite comatose, with elevated temperature; he then developed a most profuse urticaria, and forthwith recovered; had he died we should not have known better, perhaps, than to have called his disorder cerebral congestion. Such instances might be multiplied indefinitely. I am ready to admit that such a term as congestion of the brain is useful to the practitioner in some of his difficulties, and so far as it is understood to signify only that the case to which it is applied is cerebral and obscure, there is no harm in it—nay, there is a certain advantage in its indefiniteness—whilst it meantime does not usually carry an unduly sudden or alarming impression to the minds of the patient's friends. But, for all this, it is surely undesirable to make this conveniently vague term take a place in strict medical teaching, and to use it there as covering several widely diverse, disordered states, which can be only very vaguely portrayed even by our best clinical describers, seeing that there must arise a great temptation to stop at

this idea of congestion of the brain when further inquiry would have shown the real nature of the case. It is true that we are compelled to use some terms to give expression to all that we can know of obscure disorders, and it might be thought that "congestion of the brain" stands thus on a par with "sciatica" and "colic." But there is a wide divergence between these, at first, apparently parallel examples. When a person has pain in the course of his sciatic nerve we search for aneurism or other tumour which might cause the pain, and if we do not find any such cause we say the case is one of sciatica. Even here there is a danger of our too easily taking up with the easier diagnosis of sciatica, a danger which not unfrequently induces the practitioner to overlook an organic cause of pain. However, there is nothing wrong in describing pain in the course of the sciatic nerve as sciatica, since the term means only sciatic nerve pain. Likewise, in the case of such an expression as colic, the term applies without doubt, whatever be the nature of the colic pain. The term involves no supposition of a definite cause of the complaint, and there is nothing positively misleading in the use of it. But in the example of "congestion of the brain," employed in a similar vague way, there is this important difference, that the term does signify a fulness of and pressure of blood within the cerebral vessels, which fulness and pressure may not exist, and I think I have shown probably do not exist. So that whereas in any prepossession with the idea of sciatica we only incur the risk of sometimes failing to reach the whole truth of individual cases, we are probably entirely wrong at all levels when we use the term congestion of the brain. Again, this term does not only apply to one definite kind of pain like sciatica and colic, but it is made to include convulsive disease, apoplectiform disease, febrile disease, and mental aberration, thus extending its shadow and obscurity to confuse a very large part of the otherwise clear history of diseases of the brain.

We could not perhaps have a better example to show how far the description of these diseases as congestion of the brain is correct than we meet with under the form I am now discussing—the febrile form of cerebral congestion; for we see the whole group of symptoms described as the febrile form of cerebral congestion appear as "cerebral rheumatism" in rheumatic fever. Now, in cerebral rheumatism with its perfectly characterised febrile congestion of the brain, we happen to have very decisive evidence that there is no congestion of the brain, but the exact opposite of this. Ten years ago one did not know what to do with the rapidly fatal brain symptoms which occur in some cases of rheumatic fever. I tried bleeding, and large doses of brandy and large doses of quinine, but all the patients died. The plan now successfully adopted is well known. I first practised it in 1870, and an account of the case was published by Mr. De Liefde, then house-physician. I mention it because of the somewhat rude thoroughness of the treatment. The patient had passed through the stage of muttering, delirium, and was settling into insensibility, when at a temperature of about 106° he was put at once into cold water at 60°. The result was that this almost comatose and dying man shortly became as sensible as any of the bystanders. Now the effect of such a sudden plunge into cold water must be to drive blood from the surface of the body to the deeper parts, including the brain. Indeed, the treatment is the extreme reverse of that putting of the feet and hands into hot water, which is recommended for cerebral congestion. Yes, doubtless rightly, and if you placed the feet and hands in hot baths, you must tend to draw blood away from a congested brain, and *per contra* by placing not only the feet and hands but the whole body in very cold water you must tend to do the opposite of this and drive blood to the brain. But in this case in which every symptom described as cerebral congestion was at its highest degree and on the point of a fatal issue, the extreme reversal of the treatment for congestion, this driving of blood to the brain wakes up the man in the most magical manner.

Thus the third form of so-called cerebral congestion belies this view of its nature by passing off under treatment, which must add to any congestion really existing in the brain. Let us now look at the last of the forms of so-called cerebral congestion, that noted as delirium. The description is of a patient of advanced age, who after some hours or even days of undue taciturnity becomes cheerful, or gay, or hilarious; he talks loudly and incoherently, but rarely exhibits any violence. He gets out of bed, wanders about his room or ward, opens drawers, puts on his dress, and is bent upon doing something which he cannot explain, or which if expressed in words is unnecessary, unaccustomed, and absurd. He is under a delusion of no fixed character, and can usually be directed and controlled without much difficulty. This being the description of the ailment, it may be well to see how far it is a good thing to teach it as a sufficient view that such symptoms are due to congestion of the brain by giving shortly the history of a case of the kind. Not many months ago I was asked to see an elderly man whose relatives were said to be quite worn out with taking care of him on account of his insane conduct. The medical gentleman in charge of his case said that the disorder was congestion of the brain, a bodily disease, and not mental, so that he refused to certify to the patient's insanity. When I saw the man I found a state of affairs completely justifying this view according to those who teach of a delirious form of congestion of the brain. Mr. P—— was fifty-nine years of age. The poor fellow had been knocked down and robbed two years before, and of late he had shown great depression of spirits. Then he grew excited and talked, and was pleased at the idea of going home. He got out of bed and wandered about his room, and opened drawers, and dressed himself in the middle of the night, and wanted to go home through the second floor window or over the balustrades of the stairs. But there was no fixed character in his delusion; sometimes he was content to stay where he was under the idea that the Queen had made all the days Sundays now. He was generally submissive too and managed without any difficulty except the fatigue of constantly watching him. He had his wandering attacks almost nightly between September and December. This man's disorder corresponded in all points exactly with the so-called delirious form of congestion of the brain. So that the medical practitioner in attendance, trusting his look, was justified in saying that the man had congestion of the brain and not insanity. But meantime this madman was endangering his own life very seriously, and causing the gravest overstrain to the members of his family, who were unequal to the care of him. Certificates were immediately signed and he was put into comparative security, from which the entirely baseless theory of congestion of the brain was keeping him through the accurate knowledge the doctor had of his teaching. I think one may say, without prejudice, the utterly baseless theory of congestion of the brain. Such excitement does not show congestion of the brain. The best marked cases I have seen of this kind of insane delirium have occurred in heart disease. "Yes," it may be said, "exactly the condition to congest the brain!" But no one would say that if he were to bear in mind the kind of hydraulic difficulties that affect the circulation in heart disease. It is true that in heart disease you have congestions enough. But the congestions occur in the dependent parts of the body, because the inanimate power of gravitation takes hold upon so much of the blood as a weak heart cannot drive, and draws so much blood downwards; but in doing so it draws away from the head and other upwardly-disposed parts of the body, which are thus kept empty in proportion as the dependent parts are full. And, indeed, in a severe case of delirium which occurred in a man with cardiac dropsy in Philip ward of Guy's Hospital I put the matter to a severe test. The miserable man, after weeks of breathlessness and sleeplessness, became insane, with the symptoms I have read to you as those of cerebral congestion. I had his pillows taken away, and kept him asleep with chloral for three days; at the end of that time he was allowed to wake, and he was then quite sane again, and he afterwards recovered so far as to lose his dropsy and leave the hospital. I believe that if I had kept his head high he would have died. The symptoms were those of an exhaustion in an anæmic brain.

Indeed, the circumstances in which cerebral excitement appears are so far from being of a kind to show an exaggeration of the powers of the circulation that, from this point of view, we can only wonder how it has come to pass that excitement of mind occurring in the aged, the exhausted and the dying, is as generally interpreted as signifying an excess of circulation in the brain. The reason, doubtless, is on account of the natural way in which we infer from the violences set up by a disturbed mind that a like violence must be at play in the brain as the organ of the mind. It is so natural to suppose that activity of the eye, and tongue, and hand must mean activity of the circulation which feeds the nervous centres of the eye, and tongue, and hand. It is thus that the sight of overactive mental states brings to the medical mind the idea of too great fulness of

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the bloodvessels as naturally as the sight of the diurnal course of the sun in the sky brings to the popular mind the idea that the sun goes round the earth. In either case it is only by further consideration that the fallacy of evidence so apparently obvious is made certain. Reflection will show that the activity of these delirious persons may be negative, because it may take its rise through a want of the adjustment of balance of self-restraint which a good circulation in a healthy brain gives rise to. And the aged and exhausted state of the sufferer point directly to such a negative cause. Whilst the treatment also must recognise the negative condition, and do all that can be done to feed the brain and support the system. The decisive style employed by specialists in brain disease in their pathological descriptions has done much to encourage the widely spread delusion as to congestion of the brain. The diseases such as acute mania, for which they seek the anatomical causes, offer a most impressively violent and active behaviour of the brain, and so little appears post-mortem, except perhaps a full condition of bloodvessels, that the temptation to dwell upon this state of fulness and make much of it has proved irresistible even when a reasonable doubt of the importance of congestion has forced itself upon their notice. Thus one of the least conventional of brain specialists, Griesinger, after allowing that in his first edition the significance of hyperæmia had been greatly exaggerated, goes on nevertheless, with really unabated confidence to assert the usual fallacies. First he says, that from the changes found after death, increased fulness of the vessels during life is to be assumed. "To this, therefore, a certain connexion with the morbid state is to be ascribed." An obvious fallacy, if by a certain connexion he means a causative connexion, and unless he means a causative connexion his remark has no meaning at all. He then goes on to give the usual worthless account of redness, &c., of the brain, which I have already sufficiently discussed, and ends by saying, "this hyperæmia may easily pass into actual inflammation," a thing which it is utterly impossible that any one could know. The fact is that the notion of a flooding of the brain with blood is always ready for use, so that it can be drawn upon by anyone in difficulties for an explanation. And thus if the alienist needs something to stand for a cause of violent mania, it is congestion of the brain. If the practitioner in charge where head disorders do not include madness wants an explanation of seizures that are the exact reverse of mania—fits in which, instead of violence, you have oppression and stupor,—he has it, it is congestion of the brain. If the question is of some "wiry old person"—the expression is not mine—whose circulation is, one would think, too poor to congest anything, if this old person shows negation of brain activity, still it is congestion of the brain. If a person has drunk enormous quantities of alcohol, and is comatose, this, too, is congestion of the brain; and if he has been out in the sun and has a cerebral seizure, this too is congestion of the brain.

I suppose there must be a certain satisfaction in exchanging the obscurity that beclouds our ideas of disorder of the nervous system, of whose order we know so little, for a disturbance of the hydraulics of the blood, about which we can know much more. Even though the result is only a translation of the terms in which the symptoms are interpreted to the mind, rather than an explanation of the symptoms. There is, indeed, no true explanation attempted, for no one who asserts that congestion of the brain causes mania is able to say at all what causes the congestion of the brain.

I have thus far endeavoured to establish these propositions:—First, that atmospheric pressure so great as to force blood into the vessels of the brain more thoroughly than could be done by any intrinsic forces of the circulation does not produce cerebral symptoms. Second, that strangulation and carbonic acid poisoning lend no support to a supposition of independent congestion of the brain. Third, that morbid anatomy is unable to show any evidence of general overfilling of the bloodvessels of the brain. Fourth, that in the diseases described as congestion of the brain clinical evidence of overfilling of the cerebral bloodvessels is utterly wanting, and that the state of circulation present in these disorders can be shown in typical instances to be the reverse of an overfulness. From all this it follows that there is no pathological justification for our setting up congestion of the brain as a distinct kind of disease, nor for our pretending to explain cerebral symptoms by the assumption of congestion of the brain. For the forcing of blood into the brain whilst the blood is good and properly aerated, and is within its vessels, affects only favourably the functions of the brain as far as our evidence goes. I cannot quite tell where or how the idea arose, but it appears to have been very anciently and naturally supposed that when the senses are lost or submerged this can only happen through their being drowned in the blood. But the example of sleep is contrary to this rough notion; for since Mr. Durham twenty years ago showed that the brain is pale in sleep, and other experimenters have confirmed the observation, we have a daily occurring analogy in every living person which would lead us to expect insensibility to occur with a pale brain, rather than with a brain loaded with blood. Again, fainting teaches us the same lesson: we see in fainting the senses pass into abeyance through bloodlessness of the brain. On the other hand, I do not know of a single proven example in which the senses are lost by pressure of blood within the vessels of the brain. If you object to this that strangulation gives such an instance; it must be remembered, on the contrary, that strangulation involves a stoppage of circulation and of all vital changes in the brain; and again that it must be very thorough to cause unconsciousness. So that strangulation has no bearing as a fulness of the vessels of the brain, whereas the caisson pressure gives us the most absolute proof that immense pressure of blood into the cerebral vessels only increases the comfort of the brain, and in fact shows that the brain is glad of blood, and the more the better, so long as it is good and does not burst the vessels. I shall now endeavour to point out that bursting of the vessels occurs only in relatively bloodless brains; and so apoplexy has no bearing in favour of congestion of the brain.

The theory of congestion of the brain has been taken from a too simple and superficial notion of the relation of the brain to its blood supply. If we take a primitive view of this matter and suppose the skull to be a closed cavity containing more or less blood, our course of thought would naturally run much in this way. Persons seized with sudden unconsciousness and dying are found to have an escape of blood within the brain which compresses it; and other persons attacked in a practically identical way show no such escape of blood. It is, then, in the absence of reasons to the contrary, easy and natural to suppose, as an explanation of all this, that in the cases where bleeding occurs the blood before bursting the vessels was pressing very severely inside them, and was distending them and filling the skull over-full, and squeezing the brain very effectually. With such an idea in the mind, it is further easy to think that when no bursting of the vessels occurs, this squeezing of the brain by blood in the vessels would cause the same results as the pressure of blood escaping from the vessels when they burst; and from this point of view it is even possible to regard the bursting of a vessel and the bleeding into the brain as a thing of secondary importance, and to believe that the apoplexy is really set up when a certain engorgement under pressure is reached, which pressure may or may not burst a vessel; but whether it does or no matters little, for the pressure on the brain is the same whether the blood is in or out of the vessels, and, indeed, this opinion has been held and openly stated. But such a line of reasoning overlooks or under-estimates the efficiency of the means whereby the cerebral circulation is relieved, and it overlooks the nature and consequences of arterial tension. And especially it overlooks the fact that apoplexy, when not the result of aneurisms of the cerebral arteries or of embolism of those arteries, is nearly always the consequence of the high arterial tension of Bright's disease, and is almost limited to cases of granular kidney and of hypertrophy of the heart.

I do not think that the considerations that arise from what we know of sanguineous apoplexy have been reflected upon the naïve and simple but plausible conception of congestion of the brain as this conception was formed by our predecessors. For with what we now know of the circulation, arterial, capillary, and venous, we may prove that the notion of a filling of the vessels of the brain with blood so that they compress the brain is unfounded so far as sanguineous apoplexy is concerned. The relations of apoplexy to Bright's disease, and through Bright's disease to high arterial tension, throw significant light on the whole of the subject, and prove that the bursting of a small cerebral artery and the consequent bleeding does not arise from any general vascular fulness in the cranium, but from tension in the arterial system only, which tension leads to the rupture of the vessel. Now, high

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tension in an artery means resistance to the flow of blood from it into the capillaries, and diminished flow through them into the veins. Hence we see that the high tension in the artery, which eventually bursts it, takes its rise in a cause which prevents supply of blood to the capillaries and veins, so that the higher tension in the arteries indicates a cause excluding blood from the far more capacious veins, and hence, in proportion as the blood is disposed to burst the artery, in just such proportion is the venous system underfilled. And, in fact, it thus happens that instead of blood bursting out in apoplexy through a general overfulness of vessels in the skull pressing on the brain, the vascular system, as a whole, is underfilled. And this is not a merely theoretical view, although I think the theory itself will stand any examination. But, in fact, before the consideration of the question from a theoretical point of view offered me this explanation of observed facts, I had observed that those brains in which apoplexy occurs carry signs of old anæmia, and indeed present the appearances characteristic of atrophy from deficient supply. I am not here speaking of apoplexy from such accidents as aneurism or embolism, but of ordinary apoplexy in elderly subjects; and I believe it will be found true that the symptoms which give warning of coming danger, the giddiness and transitory numbness, &c., are evidences of capillary and venous anæmia of the brain, which is starving under the resistance offered to the entry of a due amount of blood. Thus, so far from an apoplexy being significant of a general filling to the bursting-point of the intracranial vessels, causing such a fulness under pressure as would compress the brain, it is only in the arteries which are small, and not capacious, that any excess of blood or rather excess of tension in the blood is present; and the idea of a cranium crammed with blood which if it did not burst the vessels would equally squeeze consciousness out of the cerebral texture may be regarded as altogether mythical.

Gulstonian Lectures
ON
ANÆMIA.

Delivered before the Royal College of Physicians,

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LECTURE III.—PART I.

Idiopathic Anæmia (continued). — Chlorosis: Reasons for and against its separation as a Distinct Disease — Congenital Defects (Vascular Hypoplasia, Virchow) cannot be at the root of all Cases—Its obvious Relations to altered conditions of Life and Work—Relations to Menstrual Irregularities—Symptoms those of Anæmia—The Blood in Chlorosis — Effects of Treatment. — Cardio-vascular Symptoms of Anæmia: Cardiac, Arterial, and Venous Murmurs; their Mode of Production—Anæmia as a Cause of Heart Disease (Goodhart).

MR. PRESIDENT AND GENTLEMEN,—In my last lecture I endeavoured to show that pernicious anæmia must be considered as the outcome of a severe anæmia, whether symptomatic or idiopathic, its progressive course and frequently fatal issue being induced by changes of which there is yet but little evidence either in the normal formation of the blood or in its destruction; and I propose to-day to speak in the first place shortly about Chlorosis, which I believe to be a form of anæmia depending on similar changes, and therefore to be considered as falling under the head of idiopathic anæmia. I know that this is contrary to prevalent teaching, and perhaps may be regarded as a retrograde step, for the tendency is undoubtedly rather to analyse diseases than to effect syntheses of conditions which have a superficial resemblance. But where the distinctions are so finely drawn and so subtle as they are in respect to chlorosis, such analytical severance is hardly justifiable, perhaps harmful, and certainly productive of confusion. There is only one certain ground for such severance, and that is the one which follows from Virchow's discovery in some cases of chlorosis of what appear to be congenital defects in the circulatory mechanism, to which I shall presently refer. Setting that aside, there does not appear any marked distinction between chlorosis, in its development and progress, from other forms of anæmia of idiopathic origin, save only that in many of the latter the progress is uninfluenced by treatment. The point of view taken by those who argue for the separation is that chlorosis is a distinct morbid entity, of which the anæmia is but a symptom[1]—that it is marked by nervous derangement, and frequently by menstrual disorder, as much as by anæmia. But the same may be said with equal warranty of the forms of anæmia to which it should be allied. The anæmia itself is only a symptom, which in its turn brings other symptoms after it; and in both chlorosis and in the idiopathic anæmia of the adult the anæmia prevails over every other symptom.

The reasons which, so far as I can gather, are advanced in favour of regarding chlorosis as a distinct disease are these: its almost complete limitation to the female sex; its apparent dependence in some way on the menstrual function, and the changes undergone by the organism at puberty; certain nervous conditions, and certain peculiarities in the composition of the blood, and the structure of the bloodvessels. I will consider each of these in turn.

It is well known that females are more readily influenced by anæmiating causes than males; the blood is less rich in hæmoglobin, and its quantity is less. Any influence liable to create a demand on the blood is more likely to lead in the female to anæmia than in the male; and not only at puberty, but during pregnancy, the puerperal period, lactation, and the menopause, anæmia may arise and become profound. There is no essential difference between the anæmia produced at any of these periods. Nor is the limitation to the female sex of a condition indistinguishable from chlorosis invariable. I have at present under my care a youth, well-developed and well-nourished, who is the subject of an anæmia conforming in its history and characters, and I may add in its curability, to the most typical cases of chlorosis, and from time to time such cases of male chlorosis are recorded. More than this, in later life the male like the female appears to be liable to the development of an insidious anæmia, without wasting, which in all its leading features resembles chlorosis. It may be initiated by the same influences, mental, physical, hygienic, and other, which initiate chlorosis; it is not so common or so frequent because in adult life the balance between blood formation and destruction is more evenly maintained.

The dependence of chlorosis upon the menstrual function is not so absolute as is often supposed. The importance of that function and of its regular continuance are doubtless great, and of considerable influence upon the blood; and at puberty there must be a considerable readjustment of the forces of the organism when the processes of ovulation and menstruation are established. There must be an increased demand on the blood then and at every recurring menstrual period; and although we may be unable to state precisely what the influence is, we are persuaded that there is a connexion between the normal evolution of the blood and of these processes. At the same time menstrual irregularities often neither precede nor accompany the development of an anæmia indistinguishable on other grounds from chlorosis; whilst both amenorrhœa and menorrhagia are as frequently secondary to the anæmic condition as initiatory of it.

The same might be said of those nervous symptoms which frequently predominate in chlorotics to such an extent that some have desired to place chlorosis among the neuroses. For whether we regard the mental and emotional characteristics, or the liability to neuralgiæ and other nervous disorders; whether we consider the influence of psychical perturbations in determining the development of the anæmia,—there is no firm distinction between chlorosis, as generally understood, and ordinary anæmia.

There remain two very important reasons which, if established, should suffice to justify the separation. The first is one to which I have frequently referred—viz., that in chlorosis the alteration in the blood is solely a diminution in its hæmoglobin, and in no other constituent. If this obtained of no other anæmia the distinction would be of value. But unless we enlarge the boundary of chlorosis until its territory becomes conterminous with that of idiopathic anæmia,

[1] Moriez: La Chlorose. Paris: Masson. 1880.

this distinction will not hold. For it has not been proved, except in a few cases of pernicious anæmia, that the serum-albuminates are diminished in other forms of idiopathic anæmia besides chlorosis. There would seem to be no evidence of such diminution except when dropsical symptoms occur, and in those cases where there is general inanition. But in very many of the cases of idiopathic anæmia of the adult the body is well nourished and in this respect shows no difference from chlorosis. Lastly, there is Virchow's discovery of certain vascular anomalies in chlorosis, which of themselves, if of general occurrence, would suffice to create a distinction on the surest basis—viz., an anatomical one. I may be permitted to briefly describe these anomalies, which have also been met with by Rokitansky and Bamberger. There is considerable narrowing of the aorta, which can hardly admit the little finger, instead of the thumb, its normal size. It is quite infantile in size. Its walls are much thinner than normal, but their elasticity is very marked, even excessive. The intima is the seat of irregular thickenings in the form of wavy, or trellice-like, elevations, with ridges, between which are depressions. The inner coat is, moreover, often the seat of diffuse fatty degeneration, limited to the superficial layers, and forming yellow patches and striæ, especially between the intercostals in the posterior wall of the aorta. Sometimes this degenerative change extends to the muscular coat. Finally, there are anomalies in the origin of the branches of the aorta, particularly seen in the irregular disposition of the intercostals. With these vascular imperfections there is sometimes a small imperfectly developed heart, but more often a large one, dilated and hypertrophied. The reason for this diversity is explained by Virchow, who, believing that the whole condition is one of arrested development of the vascular system (associated sometimes with stunting of the body), and, one may add, of the blood, would recognise a small heart as part of this general change; but if the volume of the blood increases, this, together with the narrowness of the aorta, would be a sufficient cause for the enlargement. This vascular hypoplasia may or may not be associated with an ill-developed condition of the uterus and ovaries, which Rokitansky thought the rule in chlorotics. But neither of these congenital defects—or, more correctly, defects in the evolution of the vascular or of the generative apparatus—can be considered as underlying every case of chlorosis, or, at any rate, existing as a cause of the anæmia. Moreover, the vessels are liable to great variations in size, the intercostal arteries are very inconstant in their mode of origin, and narrowness of the aorta has been often described in cases where there were no symptoms of chlorosis during life. It is, however, a valuable and suggestive contribution to the subject, opening up the line of thought that in chlorosis we have a condition dependent on imperfect evolution of the blood and vascular system, but no proof has been given that the diminution in size of the vessels has not followed upon diminution in the total quantity of blood.

The history of chlorosis presents, in the majority of cases, a distinct etiological factor or factors, which cannot be ignored. Those who are most frequently its subjects are young women who have exchanged the light and air of the country for arduous domestic work in a town house, withdrawn from sunlight, undergoing considerable physical exertion in climbing stairs, or engaged in sedentary occupations in crowded and ill-ventilated rooms, or in many other ways subjected to conditions which we know to be prejudicial to healthy nutrition, whilst at the same time, by reason of their age and sex, they are more susceptible of such influences. There are changes then at work both around and within the organism all tending to the same end. It would be absurd to eliminate all the cases in which there are these etiological factors from the category of chlorosis because in other cases the disease develops without them, for it is impossible to say to what extent they act in inducing the anæmia. And the symptoms of chlorosis are those of anæmia. The increasing pallor, breathlessness on exertion, palpitation, headache, vertigo, and general nervous irritability, the fatigue induced by slight effort, the physical and mental enertia, the cardiac and vascular signs, the marked thirst, frequent derangements of digestion, and the character of the urine. These and other symptoms can be directly attributed to the anæmic state. Nor is the course of chlorosis quite apyrexial in all cases. It is often so, but it is not very unusual to find a temperature of about 99°, with slight exacerbations to 100° or 101°, a mimic reproduction of the irregular "anæmic fever" that appears in pernicious anæmia.

Finally, what are the characters of the blood in chlorosis as regards hæmoglobin and corpuscles? This has been thoroughly inquired into of late years, and in my first lecture I referred to some of the facts concerning this matter. I may briefly recapitulate and extend these points. There is invariably a reduction in the total quantity of hæmoglobin, a reduction reaching, according to the early researches of Duncan, about one-third of the normal. According to Quinquad the hæmoglobin is diminished about one-half in moderate chlorosis, varying between 70 and 30 grammes, instead of 125 grammes (which is the normal quantity), per 1000 grammes of blood, and the capacity for oxygen is very greatly reduced. The same observer declares, further, that the chief saline constituents of the corpuscles—the potash, salts, and chlorides—are appreciably diminished, but that there is no change in the amount of the stromal globulin. In a series of observations by Hayem, where the number of corpuscles was estimated in relation to their richness in hæmoglobin, this latter was found to be on an average about 50 per cent. of the normal, and in a few cases in which I have made similar calculations this diminution has been almost as marked. But there is not, as a rule, a corresponding diminution in the number of corpuscles. The mean of eighteen numerations by Hayem gives 3,520,000 corpuscles per c. mm. of blood, or 70·4 per cent. of the normal; and of seven cases I find a mean of about 3,000,000, or 60 per cent., there being, however, remarkable variations in the total number of corpuscles in different cases. For example, in one well-marked case where the percentage of hæmoglobin was only 45, the number of corpuscles was 4,050,000, whilst in another the number of corpuscles was only 2,090,000, with 32 per cent. of hæmoglobin. Such examples as these—and they might be multiplied—prove what I have before pointed out, that the number of corpuscles is only one factor in the degree of an anæmia, their value as to hæmoglobin being the more important factor. Especial attention has been paid in chlorosis, as in pernicious anæmia, to alterations in the form and size of the corpuscles. Malassez declares that the corpuscles are, as a rule, larger than those in health in the ratio of 1·09 : 1, and others have found a certain number of truly giant corpuscles, with a diameter of 12 μ instead of 7·7 μ (Hayem). More striking, however, is a departure from the normal in the contrary direction, these, according to Hayem, forming an undue proportion. He lays much stress upon the abundance of these small elements or "hæmatoblasts," which, it will be remembered, he considers as the early form of the adult corpuscle, and believes their accumulation to point to the incomplete development or evolution of the blood. The same observer has also noticed great variations in the form of the corpuscles, which bring to mind the variations described in pernicious anæmia by Quincke. I cannot say that I have been enabled to confirm this; certainly the corpuscles seem to be very variously sized, and to be more plastic and softer than in normal blood, forming rouleaux which are far more irregular, whilst the corpuscles, too, seem to be flattened out and otherwise slightly altered in form, but the extreme variations in size and in form, except after exposure (when they more rapidly become crenated than do healthy corpuscles), I have not seen.

The effects of treatment, especially of ferruginous medication, are so remarkable in those cases of idiopathic anæmia which are styled chlorosis as to be in sharp contrast with the other forms occurring in the adult. In a very short time under such medication the blood regains nearly its normal standard. Sometimes this improvement is permanent, but often the anæmia returns at some later date, under the influence of some exciting cause. There is an anæmic tendency in such individuals which might be explained by the anatomical defects described by Virchow, in which case the disease would be practically incurable, but which seems more probably dependent on a defective evolution of the blood-forming organs.

I have ventured to point out these matters because of the difficulty, which I feel sure is a real one, of deciding in any given case whether it is a chlorosis or not. It is not a mere question of nomenclature; if that were all it would matter no whit by what name we signified these conditions, but it is the difficulty which has arisen in consequence of the word "chlorosis" being held to convey more than the word anæmia, and being also arbitrarily considered inapplicable to idiopathic anæmia arising in later life. It may be most desirable, as Immermann[1] rejoices to think it is, that in

[1] In his article on Chlorosis in Ziemssen's Cyclopædia.

chlorosis we have a distinct malady rescued from being merged in the "great ocean of anæmia," but unless its distinctive features can be more sharply defined than they are at present, the difficulty of separating it from other forms of idiopathic anæmia will constantly be felt.

I desire now to speak shortly of two of the more constant and striking effects produced by the anæmic condition—the signs furnished by the heart and bloodvessels, and the influence it has in determining fatty degeneration. Upon the former of these points, which has been the object of so much controversy and speculation, I hardly feel qualified to speak with authority, not having studied the matter so deeply as many. It seems to me, however, that as regards the production of so-called hæmic murmurs, we have to consider, not only the factor of the blood-impoverishment, and especially its diminution in quantity, but also the factor of the conditions of the walls of the heart and bloodvessels induced by that impoverished blood. Indeed, the idea that the murmurs are solely due to the first of these factors has, I believe, been almost abandoned; it did not afford an adequate explanation, and seemed to be contrary to physical laws. As regards the purely *cardiac* murmur, there are at least two conceivable explanations for it in which the condition of the muscular walls (dependent on the anæmia) is primarily involved. One of these is that the heart is dilated, and the murmurs are produced by its cavities being incompletely filled, and the other that there is actual regurgitation through the tricuspid and mitral orifices owing to the imperfect action of the enfeebled papillary muscles deranging the mechanism of the valves. Besides these cardiac bruits there are murmurs produced over the pulmonary artery and aorta. All of these murmurs are systolic in time, and vary much in intensity and situation; the most constant seat being at the base of the heart, the next at or within the left apex. Dr. Pearson Irvine, whose loss we have had so grievously to deplore, studied this subject for a long time, and embodied his conclusions in a paper read before the Royal Medical and Chirurgical Society in 1877. He started from the ground that dilatation, especially of the left ventricle, is the chief cardiac change in chlorosis—an opinion promulgated by Stark,—and endeavoured to explain the murmurs not obviously vascular on the fact of this dilatation. One may admit the fact that in many chlorotics there are signs of this dilatation. The matter, however, is very difficult of clinical proof, but it is supported by the post-mortem evidence of hypertrophy by Virchow and Lewinski—a hypertrophy which is as conceivably produced secondarily to a dilatation, as to a narrowed aorta. The known relation between anæmia and fatty degeneration of the heart supplies us with ground for believing that in slighter cases the heart muscle is enfeebled; and probably also its innervation is affected by the impoverished blood. Dr. Irvine differentiated four cardiac murmurs in chlorosis, having their points of maximum intensity over the left auricle and its appendix, at the left apex, over the fourth left costal cartilage, limited there or transmitted downwards to the right or left, and lastly, in the fifth left space, below it or over the sternum adjacent to it. He was inclined to attribute the production of these murmurs to the dilatation of one or both ventricles, and did not favour the view that any of them were due to regurgitation. The regurgitant hypothesis, which explains the auricular murmur as well as those met with about the region of the apex, is supported on the left side by the almost constant accentuation of the second pulmonary sound, and on the right side by the occurrence of jugular pulsation. The mechanism of this regurgitation may be either a slight inadequacy in the contraction of the papillary muscles, or it may be dependent on dilatation. Although the basic systolic murmur may be in many instances due to this regurgitant eddy into the auricular appendix, there can be no question that bruits are heard strictly over the aortic and pulmonary areas. Of the mode of the production of the former (which are not common) no adequate explanation has been given; but of the latter, the true pulmonary bruit, we have Quincke's view that in the cases where it is marked, the lung is retracted and the pulmonary artery slightly compressed at every systole; and we know how pressure by the stethoscope will increase the intensity of these bruits.

The murmur heard in the carotids and other arteries is only an exaggerated degree of what can be heard in health, and is probably due to the impaired tonus of the vessel allowing it to be more readily influenced by slight pressure.

The hum in the jugular vein—to which more significance has been attached than it merits, as shown by Dr. Herbert Davies—is produced by pressure, and increased in intensity whenever the flow of blood is accelerated. This is illustrated in the influence of posture—its increase in the standing position in the rise and fall of the otherwise continuous blowing sound, with the respiratory movement, the increased aspiration into the chest with every deep inspiration being accompanied by increase in the intensity of the murmur, which can be entirely arrested by forced expiration. It is noticed also that the auricular and ventricular diastole influence slightly the intensity of this bruit, so that in it we have a measure of the variations in celerity of the venous blood-flow.

I ought not to leave this part of the subject without alluding to the hypothesis advanced by Dr. Goodhart,[3] that anæmia may be at the foundation of some of those valvular diseases, especially of the mitral valve, the etiology of which is still obscure. He thinks the evidence conclusive that in anæmia there is ventricular dilatation, just as there is post-mortem evidence of muscular degeneration, and suggests that the continuance of this regurgitation may submit the valves to so constant and irregular a strain as to lead to alterations in their intimate structure, thickenings and puckerings, productive of permanent regurgitation and possibly some stenosis.

ON THE

NATURE AND SEQUENCE OF THE CARDIAC AND VASCULAR CHANGES IN INTERSTITIAL NEPHRITIS.

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THE short yet very able rejoinder (THE LANCET, March 12th) made by Dr. George Johnson to my papers in THE LANCET for the 5th and 12th of February appears to call for some brief additional comment. When my articles were written I had not seen Dr. Johnson's paper in the *British Medical Journal* for May 25th, 1878, and was consequently unaware that he had ceased to maintain the muscular character of the inner longitudinal layer of the thickened coats of the arterioles in interstitial nephritis. In the two papers just mentioned, Dr. Johnson expresses his conviction that the layer of longitudinal thickening is due to a physiological increase in the elastic or outermost portion of the tunica intima. He bases this conviction upon the following reasons:—Firstly, this thickened inner layer has precisely the same structural appearance and arrangement as the elastic layer in the larger, but still microscopic arteries, the increase being probably ascribable to the necessity on the part of the arterioles for resisting that tendency to elongation to which they are subjected under the strain of the increased injecting force of the hypertrophied left ventricle. Secondly, the thickening being constant and uniform in its structural characters, and presenting essential points of difference from syphilitic or tuberculous thickenings, it is probable that the true explanation of its nature is to be sought rather in the direction of physiological hypertrophy than in that of pathological change.

My reply to these arguments rests principally on the ground that this uniformity in the structural character of the thickened intima is not observable in my specimens. On the contrary, the shape and arrangement of the elements of the intima in different examples are subject to very considerable diversity. For descriptive purposes I may distinguish two principal varieties of thickening—namely, the fibrous and the cellular. The fibrous variety is evidently that to which Dr. Johnson alludes. The arteriole figured by him in the thirty-third volume of the Medico-Chirurgical Transactions, page 114, is an excellent example of it. A somewhat minor degree of the same kind of thickening is represented in Plate 4 of my monograph on Interstitial Nephritis. Were this the only kind of thickening I should feel less hesitation in regarding it in the same light with Dr. Johnson, even despite certain difficulties which might be suggested by a consideration of the permanent and stable nature of elastic tissue. But the characters of the cellular varieties of thick-

[3] THE LANCET, vol. i. 1880, p. 479

ening appear to me to negative this hypothesis, and to force upon us not only the idea of pathological change, but also that of inflammatory connective-tissue multiplication. Take, for instance, the arteriole, a portion of whose wall I have figured in Plate 5 of my monograph. Here the thickened tunica intima, far from being exclusively fibrous, contains a large number of rounded or ovoid cellular elements, which can hardly be regarded as anything else than the products of a pathological multiplication of the connective-tissue cells of the middle layer of the inner coat. The elastic elements of the outer layer of this coat are visible as a number of sharp wavy lines separated from one another by the elements originating in the proliferative process. When viewed in transverse section under a power of about 600 diameters, these lines are seen to run through the thickened intima, presenting an appearance somewhat comparable to that of river-markings on a map. It is difficult, indeed, to resist the conviction that the wavy lines represent the split-up and displaced lamellæ of the elastic or outer layer of the inner coat, while the bulk of the thickening is constituted by an increase in the number of the elements forming the connective tissue or middle layer. The structural peculiarities of this variety of thickening are almost identical with those visible in many syphilitic arteries. The patient whose kidney contained the arteriole figured in Plate 5 was, however, known not to have suffered from syphilis.

I purposely omit all mention of the appearances observed in the vessels of the remarkable kidney, an arteriole from which is represented in Plate 6 of my monograph. In this case the arteries were waxy, and there was a suspicion of syphilitic history which might tend to invalidate any conclusions based exclusively upon a consideration of the changes in the vessels of this specimen. Accordingly, lawyer-like, I prefer not to cross-examine a doubtful witness. I have, however, in my possession, a number of specimens in which the arteries are in a very similar condition. In these there is no warrant whatever for the supposition of a causatory syphilis.

It now remains to explain the reasons for my hesitancy in accepting Dr. Johnson's etiological explanation of the arterial and cardiac hypertrophy of interstitial nephritis as being due to an antagonistic action on the part of the heart and arteries, the one insisting on supplying the poisoned blood to the various tissues, and the other, in obedience to vaso-motor mandates, doing their utmost to exclude it.

My first objection is an *à priori* one, and shares of course to some extent in the weakness of all such arguments. It is this. The tendency of the various factors in all living organisms inclines so obviously towards mutual accommodation, that one is conscious of a *primâ facie* reluctance to admit the existence of long continued antagonism on any grounds short of absolute demonstration. But Dr. Johnson replies, In what other manner can we account for the high arterial tension and increased cardiac action in certain cases of acute renal disease with uræmia? In the first place, I might rejoin that in these cases the time necessary for the establishment of a give-and-take toleration is not allowed. A transitory antagonism is more conceivable than a persistent refusal to come to terms. But the real objection to this ingenious argument from analogy appears to me to be the following. Increased cardiac action with high-tension pulse are by no means invariably observable in cases of uræmic toxæmia. In all such cases the blood is presumably poisoned; why then are the consequences as regards the heart and vessels not invariable also, or at least fairly constant? Yet the name is legion of those cases of uræmia where the heart's action is insufficient, and the pulse slow, compressible, irregular, and intermittent — and this not merely in the later stages, but even from the very outset. What then is the explanation of this non-uniformity? Is it not to be sought in the constantly threatening tendency to serous and other inflammations, which constitutes so ever imminent a contingency in these cases? Congestion of the lungs, pneumonia, pleurisy, pericarditis, and peritonitis are each and all of them sufficient to account for a high-tension pulse and cardiac overaction. So too is that inflammation of the alimentary canal which occasions the severe diarrhœa so frequently seen as a harbinger or concomitant of uræmia. We cannot but recognise the influence which incipient inflammatory conditions of this kind must exercise on the circulation. According to my observations of uræmic cases, circulatory inefficiency is quite as frequent as excitement; and I have been accustomed to regard the latter, not as a consequence of antagonism between heart and arteries, but as a warning to be on the alert for inflammatory complications.

I have been led to the opinion that the hypertrophy of the heart in interstitial nephritis is due to diminution in the calibre of the arterioles, because of the apparent relation subsisting between them in those cases which I have hitherto examined. I do not consider my series sufficiently extensive to warrant as yet the expression of a positive opinion; and I therefore merely wish to indicate, in the meantime, the direction in which the balance of evidence appears to incline. There can, however, be little doubt that a condition of thickening of the tunica intima is very common in cases of interstitial nephritis; that it reduces the calibre of the arterioles generally; that this diminution in the sectional area of the arterial conduit-pipes must tend to produce a rise in the blood pressure; and that this rise in the blood pressure must be compensated by cardiac hypertrophy, either as direct result or concomitant, if the efficiency of the circulation is to be maintained. These considerations, when viewed in relation to the fact that in eighteen cases a very constant relation was maintained between the diminution in the calibre of the arteries and the degree of cardiac hypertrophy, seem to point in the direction of a strong probability, which further observations must either negative or confirm.

I have already indicated my present inability to propound a feasible explanation of the causes which issue in the production of hypertrophy in the tunica media of the arterioles. I trust that a new series of observations, which I am preparing to undertake, may possibly throw some light on the subject. If anyone has explained the *raison d'être* of this unquestionable feature in the morbid process, it is Dr. Johnson; but in the absence of further evidence, I cannot but regard his ingenious theory as provisional and tentative. A few carefully conducted experiments on animals by the administration, say of ergot, for a prolonged period, might do much towards settling the question as to whether continuous contraction of the muscular coat of the arterioles might or might not, in the absence of obliterative changes in the intima, prove sufficient to give rise to hypertrophy of the muscular fibres of the heart, and those of the arteries themselves. At present, however, when the head of every tom-cat in the British Islands is held as sacred as that of the bull Apis in ancient Egypt, it is to be feared that any and every theory pertaining to this subject must remain unsettled in the absence of experimental corroboration.

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ABSCESSES CONNECTED WITH BARE BONE, TREATED WITH AND WITHOUT LISTER'S METHOD.

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THE object of this communication is to ask a question and to state a case. In a recent number of THE LANCET there was an account by two able and well-known men of a phthisical young man, aged twenty-six, who had an abscess situated over the fifth rib, which was opened "antiseptically" on December 7th, 1879. A few drachms of thick curdy pus were evacuated, and the surface of the rib was found to be bare and rough for nearly two inches. On February 23rd (i.e., eleven weeks after the abscess was opened) the drainage-tube was extruded and the wound healed. The commentary is: "This affords a beautiful illustration of the power of nature to repair, if only protection be afforded, against fresh irritation. The diseased bone was kept free from all irritation, escape being provided for the discharges preceding and accompanying repair, and perfect asepticity being secured by the use of Lister's method. Had the abscess been opened without antiseptic precautions, prolonged fetid suppuration and exfoliation must have resulted."

The questions I would ask are: "Can the infatuation of disciples—*addicti jurare in verbis magistri*—go beyond this?" "Does not any system which has good in it flourish rather than suffer by such tributes to its glory as the above?" "Is it in accordance with the principles which should render to carbolic acid the praises which belong to

it, and to common sense and the ordinary process of repair the tributes which belong to them?" The following case may assist to an answer:—

On Nov. 11th, 1880, Ellen W——, aged twenty-six, a weakly, very anæmic and pale-looking blonde, who all her life has had bad health, was admitted into Regent ward of the Middlesex Hospital with an ovoid swelling the size of a large walnut in the roof of the mouth, projecting downwards towards the tongue. It was situated chiefly on the right of the median line, and fluctuated and discharged daily a small quantity of rather offensive matter into the nose as well as into the mouth. Her jaws were filled with the decayed, ragged, and offensive stumps of molar and bicuspid teeth. The swelling in the mouth appeared three weeks before admission, and was attributed to the irritation caused by the first right upper bicuspid tooth, which had been for a long time carious, and had decayed away, leaving only a stump. This stump was extracted nine days before admission. A fortnight before coming in the swelling on the palate was lanced by the patient's regular medical attendant, and a quantity of blood and matter came away. It filled again in three or four days, and subsequently broke of itself, and discharged in two places—one where lanced, and one just behind the front teeth. A week before admission the discharge into the nose began. The mouth was slightly examined on the day of admission, but owing to her weak state of health and her fainting under examination, nothing was done until the next day (Nov. 12th), when a free antero-posterior incision was made into the abscess, and two or three drachms of mixed blood and pus evacuated. With a probe the whole palate process of the right maxilla was felt bare and rough, and the probe passed through a carious opening from the mouth into the right nostril. A wash for the mouth, consisting of Condy's fluid, was ordered, and the wound was kept open by the daily introduction of a probe. On Nov. 25th there was still some fulness in the seat of the abscess, but the mucous membrane had settled down upon the hard palate again. The mouth was still in a bad state owing to the stumps of teeth.

Dec. 3rd.—Palate looks quite sound, but patient thinks there is a trace of discharge at night into the mouth. She describes an uncomfortable "hollow sort of feeling" in the nose when she goes into the cold air. Is now well enough to bear the extraction of the stumps, all of which are to come out. The right second incisor, which was decayed, and two stumps were removed this morning.—Dec. 11th: There is now nothing wrong to be detected about the palate. Five more stumps have been removed since the 3rd of Dec. She is very much improved in health, and now only remains in hospital to have the other stumps removed.—Dec. 21st: Discharged well.

Remarks.—Cases are numerous enough in which an abscess connected with rough bare bone has been opened without what is now understood by the antiseptic precautions and dressings, and where no exfoliation has followed. But the above case is one in which such an abscess was opened not only without the perfect asepticity secured by the use of Lister's method, but in the presence of unavoidable and most septic conditions, the pent-up matter of the abscess having a communication with the nose, as well as with the mouth and its offensive tooth stumps. Yet neither exfoliation nor prolonged suppuration resulted, and the abscess, thanks to the ordinary processes of repair, was quite well in less than four weeks.

This case is open, no doubt, to the argument that the presence of the decayed and foul stumps was an important and most favourable element in the recovery, serving as potent centres to attract the germs of putrefaction, and thus draw them away from the abscess cavity and the diseased palate bone, like wasps which hover about the cracked and over-ripened fruit of the greengage tree to the neglect of the heliotrope and roses. Further, this deduction—it would not be a logical one—may be made from the case—namely, that it would be well in every instance to have a powerful centre of putrefaction at no great distance from a wound in order to serve as a counter-attraction for the said germs. I am not, however, disposed to agree with so cynical a disputant; any more than I can believe, even when asked to do so by distinguished men, especially with the evidence of such cases as the above before me, that Lister's method is requisite for the cure of these abscesses.

It has for some time past been quite the general practice in describing any successful operation, be it never so simple, or one ever so frequently performed, to state that it was done under Lister's method, and to imply that the success was chiefly due to the employment of this method. If this habit continues the students of medicine in the immediate future will run the risk of growing up to think that before the use of the "antiseptic system" there could have been no successful surgery at all; and when they get into country practice they will have to make provision for always carrying on horseback, or in their gig, a steam spray and rolls of gauze and protective, so as to avoid the qualms of conscience which must follow if in a weak moment they open an abscess without these precautions, and make the horrible discovery that there is rough bare bone. Every week contributes its quota to this end, and we are almost persuaded to think that without carbolic acid there can be no good from herniotomy, no safe colotomy, no satisfactory excision of a tumour or a joint. Such are the expressions which are daily heard that one cannot help feeling, with one of my old teachers at Guy's, a past President of the College of Surgeons, who said, "If all we now hear is true, I wonder we old fellows ever had a successful operation." It is to be hoped, for the sake of the just appreciation of Lister's system, that many of these "old fellows" will long remain amongst us, to hold the balance between the true and false, and to recall to our minds some of the successful results of pre-Listerian practice.

Mansfield-street, W.

ON THE HERPES IRIS OF BATEMAN.

BY T. COLCOTT FOX, B.A. CANTAB., M.B. LOND.,

PHYSICIAN TO ST. GEORGE'S AND ST. JAMES'S DISPENSARY, ASSISTANT-PHYSICIAN TO VICTORIA HOSPITAL FOR CHILDREN, AND PHYSICIAN TO SKIN DEPARTMENT OF NORTH-WEST LONDON FREE DISPENSARY FOR SICK CHILDREN.

OUR largely-growing knowledge of diseases of the skin, which has resulted from the general advancement of medicine and surgery and the special increase of work in a long and much-neglected section, has borne fruit in the fulfilled desire for a more scientific classification and a simplification of the grouping of these diseases. In the latter process, however, there may arise a danger of being hurried on too fast, and it is well to call a halt occasionally, and make sure of our ground, that we may not introduce confusion by having subsequently to retrace our steps. It is my intention by the following remarks to ask careful consideration of the subject before we yield to the growing tendency amongst dermatologists to swamp, as it were, in the group erythema multiforme the rare but very characteristic disease herpes iris, so well described by Bateman. Unquestionably a very real advance was made by Hebra when he grouped together under the term erythema multiforme the various varieties of inflammation of the skin, hitherto described as erythema annularis, iris, papulatum, tuberculosum, circinatum, and so on, because, although each of these varieties had distinctive features both as regards site, appearance, &c., they are frequently associated together, and are undoubtedly mere varieties due to the amount and site of the fluid effusion, and to the mode of extension of the inflammatory process. Now, it is an all-important point to recognise that the effusion of fluid in sufficient quantity or superficially enough to form vesicles or bullæ is a perfectly natural stage of the erythematous inflammation, although an exceptional termination, and by no means to be regarded as a characteristic feature. Still the term erythema ("inflammatory blush") must for the future be given a wider significance than heretofore, and must denote a type of inflammation which may exceptionally, but naturally, terminate in vesiculation. When the process is very acute or the effusion of fluid superficial enough we see such vesiculation exceptionally in many varieties of erythematous inflammation, as—e.g., in urticaria (U. bullosa, which has been described as pemphigus), in the eruptions produced by the ingestion of some balsams, in the erythematous rashes characterising many of the acute specific fevers, in erysipelas, &c. And, further, it is necessary to note that from the peculiar evolution and spread of the inflammatory process the vesicles or bullæ may be arranged singly or grouped in some variation of the annular pattern.[1]

In herpes and pemphigus, on the other hand, the effusion

[1] Those interested specially are referred to a posthumous paper by the late Dr. Tilbury Fox, which I edited for the January number of the Archives of Dermatology, 1880, entitled A Clinical Study of Hydrea.

of fluid sufficient to form vesicles or bullæ is a characteristic and almost constant feature, though exceptionally the eruption may abort or stop short of this. In pemphigus it is usual, and in the "vesicating erythemata" very exceptional, for the vesicle or bulla to rise directly without the intervention of a marked erythematous stage. In herpes the many vesicles are aggregated characteristically on an erythematous base; in pemphigus the vesicles or bullæ (for the collections of fluid may be very tiny) are usually disseminated singly, but they may be in groups of a serpiginous or other pattern.

Bearing these facts in mind, it appears to me that between the essentially vesicular or bullous diseases known as herpes and pemphigus and erythema multiforme, which is only exceptionally vesicular or bullous, it is desirable still to retain a place for Bateman's characteristic affection herpes iris. And chiefly for two reasons: firstly, because in my experience, and I have notes of many cases, it is an essentially vesicular disease; and, secondly, because it is almost always associated with the vesicular eruption known as herpes facialis or preputialis, certainly a very rare complication of even "vesicating erythema." I would not lay much stress on its symmetry, its colouring, its very constant site on the hands, knees, and insteps, nor on its strongly recurrent tendency and the influence of the seasons in its production, because though of great value collectively these features unquestionably tend to separate it from true herpes and bring it very close indeed to erythema. The peculiar form of the eruption, dependent on the presence of a central umbo and one or more successively surrounding rings of distinct or confluent vesicles, points to a mode of evolution characteristic also of the erythemata, but here I would clearly state my view that I do not include under herpes iris those rare cases of vesicating erythema in young children, of which I possess drawings, and which were recently described at the Clinical Society, though some of these lesions are identical in appearance. I am not concerned to retain the term "herpes iris," because the term herpes nowadays has a precise meaning, and I cannot agree that the disease under consideration falls within that definition. In conclusion, therefore, I would plead for the retention of Bateman's herpes iris between true herpes and the erythemata, but as far more closely allied to the vesicating forms of the latter than to the former.

Harley-street, W.

ON THE TREATMENT OF CLOSURE OF THE JAWS.

BY W. DUNNETT SPANTON, M.R.C.S. ENG.,
SURGEON TO THE NORTH STAFFORDSHIRE INFIRMARY.

I CAN discover in works on surgery very little information on the subject of closed jaws, and still less that is satisfactory in the matter of treatment. We find the affection usually dismissed in about half a dozen lines; and yet to a limited extent the matter is of some importance, and I propose to direct attention to one method of relieving the affection which, so far as I know, has not been usually practised.

Various causes have been assigned for what Gross calls "this distressing affection," the principal being cicatrices of dense unyielding tissue caused by some form of ulceration, such as ptyalism; anchylosis more or less complete, from injury, or inflammation of temporo-maxillary joints; contraction of the structures surrounding the joint, particularly the masseter and pterygoid muscles; a bony connexion between the upper and lower jaw; and from pressure caused by a neighbouring tumour or enlarged glands. I do not now refer to spasmodic closure, which would seem to depend on reflex irritation, such as the eruption of wisdom-teeth, tetanic spasm, &c.

In the two cases which I will very briefly notice, there appeared to be no other cause for the immovable condition other than anchylosed temporo-maxillary joints; and, as I shall presently show, this depended on a condition which would seem to be quite analogous to that of other joints, such as the knee, occurring as a sequela of certain diseases—such, e.g., as scarlet fever and measles. We have, in fact, to deal with a joint in which there has been inflammatory mischief at some previous time, with resulting contraction of the surrounding ligaments and tendinous structures. This consideration led me to adopt the mode of treatment which is found so serviceable in dealing with a like condition in cases of stiff knee or genu valgum—that is, to divide the ligaments in such a way as to release the joint. Various objections to such a procedure will no doubt readily suggest themselves, as they did to myself; but I think that in the two following cases the result justified the means.

The first is that of a girl, aged ten years, Ada M. R——, who was admitted under my care in the North Staffordshire Infirmary in April last year. About six years before she had scarlet fever, which resulted in hip-joint disease, and in a subsequent closure of the mouth, which had never been relieved. On admission she was very thin and ill-nourished, owing to her inability to masticate food. The mouth was firmly closed, and under chloroform it was found impossible to open it, although one tooth was broken in the attempt. There were no marks of cicatrices either in the mouth or externally; the digestive muscles were fully developed, and there was no unusual rigidity of the masseter or temporal muscles, nor was there any glandular swelling or other apparent cause for the condition of the mouth. The right hip was dislocated from disease of the joint, coincident apparently with the temporo-maxillary affection, but in a perfectly quiet state. She was able to take only liquid food, or such as she could squeeze with her fingers between the teeth.

Believing that the immobility was dependent on an anchylosed state of the temporo-maxillary joints, with probable contraction of the ligaments surrounding them, and failing to make the slightest impression by means of a gag with any justifiable amount of force, I passed a very narrow tenotomy knife into the temporo-maxillary joint on each side, immediately in front of the temporal artery, and then passed it freely round the condyle of the inferior maxilla as far as I deemed prudent, dividing completely the external lateral ligament of the joint, and partially the insertion of the external pterygoid muscle, keeping the back of the knife towards the temporal, and carefully measuring the depth of incision so as to avoid the middle meningeal artery. It is not a particularly happy spot to tenotomise in, but very little hæmorrhage occurred; and as soon as this procedure was effected I found that the joints at once yielded to the gag, and the mouth could be opened to the extent of more than an inch. For a day or two some soreness was complained of, but the gag was used almost daily, and seven weeks afterwards the patient left the infirmary able to open the mouth fairly well and to masticate her food. As a result of this her general health greatly improved. She continued well, and was able to go to school, but the use of the gag from time to time was neglected, and by degrees the stiffness began to return. At the end of November she came under my care again, very much improved in health, but with the mouth closed so far as only to admit the tip of one's finger. I accordingly repeated the operation, taking care to divide the structures, especially anteriorly, more freely than I had on the former occasion; and the result has been much more marked than it was before. She can now open the mouth to some extent without assistance, and with the use of force it can be opened wide without causing pain. There is, however, very slight lateral movement.

The second case is that of a girl aged nine, Sarah Ann B——, who was brought to me in November, 1879, for a closed mouth. She was a delicate-looking child, had been deaf from early childhood, and about two years and a half before I saw her had scarlet fever, after which the gradual closure of the jaws took place. This was naturally accompanied by a corresponding decline in her health and strength, for which her friends sought relief. The mouth was quite firmly closed, and with no legitimate amount of force could it be moved. Under chloroform I operated as in the former case, and by means of a screw gag opened the mouth freely. No untoward symptoms beyond some swelling and tenderness about the temporo-maxillary joints occurred, and by the frequent use of the gag by the patient's friends at home, she can now open her mouth sufficiently to take any kind of food, and I am glad to say is now recovering very fair lateral movement also. She can open it to the extent of more than half an inch without assistance, and is able to masticate her food thoroughly. This has led, as we hoped it would, to a corresponding improvement in her general health.

In these cases, when I found it impossible to force open the jaws, I was inclined at first to practise Esmarch's method of excising the joint, or Rizzoli's plan of dividing the ramus of the maxilla; but as I happened to see the first case in which

the former operation was performed in this country by Mr Mitchell Henry many years ago, and which resulted in a rapidly fatal issue, I was led to try the milder measures I hav described; and as an alternative of the more severe operations for the relief of this troublesome affection the plan is one which is, I think, deserving of a more extended trial. I would only further suggest that it should be practised cautiously.

Hanley, Staffordshire.

CASES OF SUDDEN OBSTRUCTION OF THE ŒSOPHAGUS.

By PUGIN THORNTON,
SURGEON TO THE ST. MARYLEBONE GENERAL DISPENSARY.

LAST year two cases of stricture of the œsophagus came under my notice, in both of which a sudden obstruction to the passage of food was the first symptom of disease. In the first case the affection proved to be of a benign nature, in the second malignant. I venture to bring these cases forward because sudden and extreme dysphagia, attacking a person apparently in good health, is a rare condition, and one which must affect a surgeon's ability to determine upon the nature of an œsophageal stricture. Sir James Paget, who saw the second case, tells me that he has never before known sudden obstruction to the passage of food to be the first symptom in cancerous stricture of the gullet. The first case is also of much interest, because in most respects it resembled one of malignant disease.

CASE 1.—Mrs. ——, over sixty years of age, was sent to to me by Mr. W. H. Evans, of the Finchley-road. Mrs. —— informed me that four days previously, during dinner, a piece of meat had stuck in her throat, and that it was with great difficulty she had managed to pass it down, that for some hours after the accident she had been unable to swallow anything, and then, and till the time she saw me, she had only been able to take liquids drop by drop. The patient was in good health at the time of the accident and had never before found difficulty in taking food. She had been apt, she acknowledged, to hurry through her meals, although unable to masticate her food properly, her teeth not being in good order. Since the accident Mrs. —— had felt continuous pain in the right ear, and had been troubled with a constant collection of frothy phlegm. In swallowing she also felt pain between the cricoid and sternal cartilages. Her expression was anxious. She was very thin, but was not aware that she was thinner than she had been for years. The larynx and surrounding parts were normal in appearance. Mr. Evans had written to say that he had been unable to pass an instrument through the stricture, and I also met with the same difficulty, the constriction being opposite the cricoid cartilage. At first beginning with a large-sized bougie, I made steady and protracted pressure on the stricture, and I then tried quickly through some of the smaller instruments. On March 13th I could pass a bougie down the left side of the gullet, but on the right side the œsophageal canal was still firmly closed. Mrs. —— had been able to take small pieces of dry bread, and could now drink without stopping. The pain in the right ear continued, but was not so severe, and the anxious expression in her face had disappeared. This patient made a complete recovery, and has remained free up to the present time from any relapse, although she has since, I have heard, been through a severe attack of pneumonia.

CASE 2.—Major ——, aged sixty-two, consulted me on March 23rd, 1880, on account of dysphagia which had troubled him for three weeks. When he came to see me he was unable to take solid food, and liquids only with difficulty. He said that the stoppage had come on suddenly during a meal, when he was apparently quite well. Finding himself unable to take anything he became very nervous, and for some hours would not make any further attempt to swallow, and when he tried he could only manage a teaspoonful of fluid at the time. On examination I found a stricture at the upper part of the lower third of the œsophagus, through which I could not pass the smallest-sized bougie. The patient was well nourished in body, nor had he noticed that he had lost flesh. His face was anxious, but presented no appearance of a cancerous cachexia. There was a murmur to be heard in the cardiac region, which, on consultation with Dr. Ringer, this physician pronounced to be aortic, and not aneurismal. For diagnostic purposes I asked this gentleman to pay me a second visit in a fortnight's time. I afterwards learnt that he was taken to Sir James Paget. He died a few weeks later.

At the post-mortem examination Dr. Hodson, of Bishop's Stortford, has informed me that he found a cancerous stricture, annular, but not complete, about one inch and a half above the cardiac orifice.

What the condition of the œsophagus was in the first case it is hard to say. It could scarcely be that the cricoid cartilage was diseased, or the patient would have felt pain on external pressure, and most probably some mischief would have been detected in the laryngeal examination. If we say that it was a case of spasmodic stricture it is difficult to account for the fact that on passing a bougie at the patient's second visit an obstruction was met with on the right side of the gullet, and not on the left. One would think that the closure of the œsophageal walls in the case of a spasmodic stricture would either give way all at once or equally from the centre of the canal, unless, indeed, in this instance a very slight and old-standing constriction of the mucous wall on the right side of the œsophagus was present at the time of the accident. Undoubtedly the circumstance of finding a complete stricture, apparently organic, in an old woman, attended with the symptom of constant pain in the right ear (the side, let it be noted, the stricture lasted the longest), and with the presence of a quantity of frothy phlegm, pointed in a great measure to the affection being of a cancerous nature.

Mr. Power, in 1866, related in THE LANCET (vol. i., p. 252) a case of stricture in which the patient died of inanition, but that on a post-mortem examination he found a perfectly natural condition of the œsophageal walls. In this case the difficulty of swallowing came on gradually, and a large-sized bougie was on one occasion passed by force through the stricture. By both patients I was asked to give a decided diagnosis. In both instances I was unable to do this. With regard to the case of Mrs ——, I explained that the nature of the illness could not at once be determined upon, but could only be cleared up by time; that although the condition of the patient was undoubtedly very serious, yet, at the same time, from the abnormality of the symptoms, there was reason for saying that the case should not be considered as hopeless. In the second instance, although one had the experience of the case of Mrs. ——, there was more reason to suspect that the stricture was of a cancerous nature on account of its position, but here again it was difficult to account for the suddenness of the attack, coupled with the absence of other signs, and the previous good health of the patient. Perhaps the proper course for clearing up the diagnosis in each case would have been to attempt to pass a bougie whilst the patient was under chloroform.

Devonshire-street, Portland-place.

PHANTOM TUMOUR.

By P. D. MALLIK, M.B.

ON Dec. 3rd, 1880, I was called to see a case of spurious pregnancy. The patient's history was as follows:—

M——, aged seventeen, married. No children, no miscarriages. Menses arrested since July, 1879. General health good. No family history of hysteria. A month after the cessation of her menses she had nausea and the usual sympathetic disturbances of pregnancy. About the second month the breasts became increased in size and tender, and afterwards became much larger and firmer; blue veins were seen crossing them. The nipples became turgid, and the changes in the areolæ were marked, and exactly resembled those seen in a case of true pregnancy. About the fifth month the abdomen was found to be prominent and enlarged. Quickening was perceived by the patient, and, what is more strange, apparent fœtal motions were observed. The patient was pronounced pregnant, and although she was suffering at the time from irregular attacks of intermittent fever, yet, according to the prejudices still unfortunately prevalent among a large section of the native community, she was not placed under

medical treatment — the very fact of pregnancy being, in their opinion, a sufficient reason against the administration of any medicine. The size of the abdomen increased progressively until it resembled the gravid uterus at full term. Exactly at the end of nine months all the phenomena of labour supervened. Regular pains came on and continued to increase in force and frequency, but no progress was observed. The pains lasted about twenty-four hours, after which period the patient had an attack of intermittent fever. Days and months elapsed, but the labour pains never returned. The parents of the girl became anxious, and thought she had an abdominal tumour. Accordingly they sought medical assistance, and Babu Hara Lal Dutt, of Chandernagore, who was sent for, requested me to see the case in consultation with him. On inspection, the tumour was situated exactly in the centre of the abdomen, and extended from the pubes below to the ensiform cartilage above. The umbilicus was not protruded. There were no striæ over the abdomen. On palpation the tumour was found to be elastic; it had not the hard feel of a solid tumour. Its boundaries were not distinctly circumscribed. Firm, even, continued pressure perceptibly diminished the size of the tumour. The tumour had no connexion with the liver, spleen, ovaries, or uterus. On auscultation, neither the fœtal heart sound nor the uterine souffle could be heard. Rumbling noises were audible all over the tumour. On inquiring whether the patient ever had "fits," a negative answer was received, but we were told that she now and then complained of "globus hystericus." Taking all these facts into consideration, we diagnosed phantom tumour. To confirm our diagnosis, we placed the girl under chloroform. When complete anæsthesia was produced, the tumour entirely vanished from sight; but on withholding the administration of chloroform for a few minutes, it reappeared and assumed its former size and shape. Thus the fact of spurious pregnancy was established beyond doubt. We ordered ten-grain doses of bromide of potassium three times a day. Whether this medicine will do her any good time will show.

Hooghly.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

COMPOUND FRACTURE OF LOWER END OF FEMUR; ACUTE GANGRENE; FATTY EMBOLISM; DEATH.

(Under the care of Mr. BRYANT.)

FOR the following notes we are indebted to Mr. Dalton.

Chas. B——, aged thirty-two, was admitted into Accident ward on July 18th. At 11 P.M. on the 17th, while alighting from a waggonette at New-cross, he slipped, and the wheel after pushing him a little way, passed over his left thigh. He was taken to Guy's at 1 A.M. in a condition of marked collapse. He had fracture of the lower end of the femur. The arteries were pulsating. Ice was applied. In the afternoon of the same day the thigh swelled and became cold. The temperature rose to 102°. Mr. Lucas was called as gangrene had set in, but did not consider it expedient to amputate. By 11 P.M. the pulse was imperceptible, the face became cold, the leg swelled and became emphysematous. Incisions were made, but the gangrene extended to the abdomen, and the patient died at 7.20 A.M. on July 19th, thirty-two hours after the accident.

Post-mortem Report by Dr. FAGGE.—Face bloated and emphysematous, so also all parts of the body. The whole of the injured extremity was exceedingly tense from the distension of the tissues with gas. The scrotum also was blown up to a large size, and large bullæ of dirty fluid were spread about the buttocks and hams. Both lungs stained from blood soaking, though they were quite *warm*. On section of the lungs the exuding fluids were thickly covered with small droplets of oil of various sizes. I have frequently seen such a state in fat bodies previously; but as it was suspected the case might be one of fat embolism, I examined the parts very carefully, and I soon noticed that the oil had a peculiar glutinous appearance, and that it came in large quantities from the moderate-sized branches of the pulmonary artery. I could take them from the vessels on to my knife and show them to the class in quantity. The lung was otherwise perfectly healthy. — Heart: Healthy. A moderate amount of clot in each side. Muscle distended with gas from decomposition.—Liver: Healthy; distended with gas.—Spleen weighed six ounces and a half.—Lower limbs: Healthy. Knee-joint free from blood, and not implicated in any way by the fracture, which was a comminuted one in the lower third, running from in front and above downwards and backwards. It appeared to be an ordinary form of fracture. The vessels were in no way lacerated or even bruised, so far as we could see. The vein was examined in its whole length down to beyond the fracture, and the artery also. They were free from clot, though both were much stained with blood. This early decomposition is worth noting, as the blood was still quite warm when the inspection was made (eight hours after death). The man was a big muscular fellow, with a fair amount of fat on him.

COMPOUND COMMINUTED FRACTURE OF LEG; ATTEMPTED PRESERVATION; SECOND AMPUTATION; FATTY ORGANS; DEATH.

Edmund E——, aged forty-seven, was admitted into the accident ward on July 20th, 1880. He was a fly-driver at Chiselhurst, and was thrown from his fly and run over, at 10.30 P.M., on the 19th. A local surgeon bound up his leg and sent him to Guy's. On removing the bandage, a piece of bone was found to have come away. The wound was about two inches long. There was fracture of the lower third of tibia. There was also a graze over the inner side of right patella, about the size of half-a-crown. The right metatarsal phalangeal joint was also a good deal bruised. The left shoulder was tender, but no bruising was to be seen. The tendo Achillis was divided. There was a little crackling up the tubercle of the tibia (emphysematous). Two interrupted side and one back splint were put on, and ice was applied to the seat of injury.

On July 26th the patient complained of heat in the injured limb and a good deal of pain, and he had been delirious during the night. On examining the leg there was a little extravasated blood on the front as high as the knee in the cellular tissue. The wound was on the inner side. There was extensive extravasation of blood in the calf. It was chiefly under the soleus, reaching nearly down to the knee, and lying in a plane superficial to the deep fascia. The tibialis anticus was slightly lacerated. The fracture was of both bones, three and a half inches from the anterior border of the tibia; there was a gap in the under surface of tibia from which the pieces were removed; there was a loose fragment of the fibula attached by muscle only. The posterior muscles were chiefly lacerated. The anterior arteries were not wounded. The internal saphena vein was free, but a good deal of coagulum surrounded it. Around the end of the bones was some granular tissue springing from the muscles. The periosteum reached nearly to the end. Nowhere amongst the muscles or cellular tissue was there any suppuration. There were some fine adhesions between the muscles around the clot. No suppuration round the end of the bones. All the clot looked firm except at one point, where it was grumous near the fracture. End of tendo Achillis was torn; the upper part looked a little swollen. The gap between was not filled up, though within the sheath there was a little new lymph. The ankle-joint was sound. Coagulum in medullary cavity. No pus beyond the clot. There was everywhere much yellow serous fluid. Stokes's supra-condyloid amputation was performed. Next day the patient was partly delirious, and very thirsty. The pupils were contracted, and there was a spasmodic twitching of the muscles. He was perspiring freely. Urine clear, pale, slightly ammoniacal, with no trace of bile or albumen. On the 28th he was quieter. There was a little yellowness of conjunctiva. There was no œdema or redness above the amputation. On the 29th he was restless. Tongue brown and dry; sordes on lower lip. Perspired freely. Passed excretions in bed. He had a peculiar smile playing over face. Urine was brown, with a greenish colour floating on top; there was some sediment; albumen was

present; nitric acid gave a slight pink blush. During the afternoon he became suddenly worse, and died at 3 o'clock.

	Morning Temperature.	Evening Temperature.	Pulse.
July 20th	—	99°	—
,, 21st	100·4°	100·6°	72
,, 22nd	100·8°	99·0°	84
,, 23rd	102·2°	102·0°	100
,, 24th	102·0°	101·6°	
,, 25th	100·6°	101·5°	96
,, 26th	101·4°	99·6°	92
,, 27th	101·3°	101·6°	100
,, 28th	103·1°	—	120
,, 29th	102·2°	—	132

Post-mortem examination.—There was extensive decomposition. The scrotum and face inordinately distended with gas. A great deal of fat in abdomen wall. The organs were all fatty, which condition Dr. Fagge thought had an important influence in causing death. There was no evidence of pyæmia.

BURTON-ON-TRENT INFIRMARY.

SARCOMA OF HEAD OF TIBIA; AMPUTATION; SECONDARY DEPOSIT IN CHEST; DEATH; NECROPSY.

(Under the care of Mr. P. B. MASON.)

T. A——, aged fifteen years, was first seen late in May, 1880. He complained of pain in the left leg just below the head of the tibia, and on the inner side. He had been struck on that spot a few weeks before by a cricket-ball, to which cause he attributed the attack. There was some tenderness over the spot and a slight fulness, apparently due to thickening of the periosteum. The case, in fact, presented all the characteristics of one of subacute periostitis, and was treated accordingly, but without any relief. After having been seen for a short time without any appreciable alteration in the symptoms he was lost sight of until the end of September, when he applied again. The aspect of the case was by this time very considerably altered. At the spot abovementioned there was a distinct swelling of a very elastic character, which had increased rapidly in size. He was admitted into the house, and the swelling daily became larger, and soon exhibited faint pulsation. The general health was good. No swelling of glands in groin, and no dulness could be made out in the chest. On October 2nd the patient was put under chloroform, and a grooved needle was passed through the swelling down to the bone. A bloody serum exuded and small spiculæ of bone could be distinctly felt. The thigh was amputated in the lower third, full antiseptic precautions being observed. The patient made a good recovery from the effects of the chloroform at the time, but towards evening there was considerable retching, great pain in the stump, and some hæmorrhage. The dressing was removed under the spray, when the flaps were found to be much infiltrated and distended by a large venous clot which had formed between them. The hæmorrhage was found to be from the femoral vein which had been divided very obliquely in the operation, and not bleeding at the time had been unnoticed. It being quite impossible to get the edges of the flaps into apposition again, the antiseptics were abandoned, and they were simply bandaged together with gauze bandages, which were allowed to remain on for five days, the discharges soaking through them. The flaps granulated quickly, and the wound eventually healed without any further complication. He was discharged well on November 20th. It is interesting to note that although all the vessels were secured without carbolised catgut ligatures there was no sign of hæmorrhage after the antiseptics had been discarded.

The boy was seen from time to time and appeared to be doing very well. On the 15th of December, however, he complained of great pain in the right side, and on examination presented all the physical signs of acute pleurisy with slight effusion. He was again admitted, but the symptoms did not yield to treatment. The effusion increased considerably; blisters were applied freely, with but little relief. There was also some dyspnœa, which was never very urgent except when lying down. The whole of the right chest was soon distended by fluid, and the advisability of tapping was discussed, but negatived (as the real cause of the pleurisy was strongly suspected) unless the difficulty of breathing became greater. This did not occur, but on the 26th of December, having felt rather better during the evening, the patient died very suddenly.

The necropsy disclosed a large mass of sarcoma at the base of the right lung, binding it down to the diaphragm. The right pleural cavity contained 320 ounces of fluid. The pleura on both sides of the chest was studded with small growths (all adherent to the ribs) from the size of a chestnut to that of a pea. The other organs were normal. No sign of any recurrence in the stump. On microscopic examination the primary growth proved to be a spindle-celled sarcoma, while that in the chest was composed of round cells. The nodules studding the pleuræ were found to have originated in the osseous structure of the ribs.

WINDSOR ROYAL INFIRMARY.

CASES RECENTLY TREATED UNDER A STRICT ANTISEPTIC PLAN.

(Under the care of Mr. HOLDERNESS.)

FOR the following notes we are indebted to Mr. C. Bullock, house-surgeon.

Amputation of Leg.—This operation was done at the lower third, in a man, aged twenty-three, for long-continued and extensive disease of the ankle-joint. Strict antiseptic precautions were observed at the time of the operation, such as catgut ligatures, carbolised silk sutures, india-rubber drainage-tubes, and the usual dressings. The wound was dressed on the second, fourth, sixth, eleventh, sixteenth, and twentieth days after operation. All sutures were removed on the eleventh day, and drainage-tubes on the sixteenth. The temperature the night before the operation was 101·2°, having been so for many nights previously. On the night of the operation it fell to 98·4°, and never rose afterwards. Patient discharged on the twenty-third day after the operation, wound entirely healed, with an excellent covering to the ends of the bones.

Amputation of Leg, at the Lower Third, was performed on a child, for the removal of a useless foot, and with a false joint, about three inches from the ankle, the result of an intra-uterine fracture. Strict antiseptic precautions, at the time of the operation, catgut ligatures, carbolised silk sutures, india-rubber drainage-tubes, and the usual dressings. Wound dressed on the second, third, fifth, eighth, tenth, sixteenth, and twenty-first days. Sutures removed, as required, up to the eighth day, and tubes, which had been gradually shortened, were removed on the twelfth day. The temperature never rose above normal. Patient left the hospital on the twenty-first day, stump quite healed and firm.

Opening a large Abscess on the back of the Thigh, in a man aged forty-five, from which twenty-four ounces of thick offensive pus were withdrawn. The man before the operation had had rigors, and evening temperatures up to 104°. The temperature became normal twenty-four hours after the operation, and remained so. The abscess cavity gradually closed up, and the patient was discharged on the seventeenth day.

Removal of Solid Bodies from the Bursa on each Leg, situated between the tubercle of the tibia and ligamentum patellæ. The ether spray was used on this occasion. The wounds were united with catgut sutures, and free drainage provided. The wounds were dressed on the second, fourth, and sixth days. She returned to her duties, which occasioned much kneeling, on the eighth day, perfectly free from all former pain, which had been caused whenever she knelt for the past year or more.

Removal of Bone from the Surface of Tibia.—A case of osteitis, in which the nocturnal pains had been most severe. A long trial of other remedies having failed, about two inches in length, from the upper part of the internal surface of the right tibia, was removed with gouge and hammer, the periosteum having been previously detached. The wound was left unsutured, and filled with blood clot. At the dressings this clot was carefully preserved. The wound gradually contracted until a line of healthy granulating tissue remained. All pain in the leg ceased immediately after the operation, and the patient left the hospital able to walk without pain, and eager to do her work, on the twenty-seventh day.

Medical Societies.

MEDICAL SOCIETY OF LONDON.

Double Facial Paralysis.—Cheiropompholyx.—Tubercular Meningitis.

AT the meeting on the 4th inst. the chair was taken by the President, Dr. BROADBENT, who exhibited a man who was the subject of a double facial paralysis; it was a peripheral paralysis. The man had suffered from headache for a long time, but the history of syphilis was doubtful. If the disease were of central origin, Dr. Broadbent remarked that it was one of a condition of extreme rarity, for that if there had been symmetrical lesion in the medulla oblongata the sixth nerve ought also to have been implicated, but it was unaffected. There was no reaction to the Faradaic current, but there was an exaggerated response to galvanism. The appearance was not characteristic of facial paralysis, because from the affection being bilateral the mouth was evenly balanced between the muscles of the two sides of the face. The expression was solemn and the man was unable to shut his eyes voluntarily, though they closed during sleep. The condition was the result of exposure to extreme cold.—Dr. S. MACKENZIE called attention to the loss of smell and to the facility with which, owing to the symmetry of the affection, the case might have escaped recognition.—Dr. GILBART SMITH noted the fact that the man had lost the power of distinguishing salt from sugar.

Dr. CROCKER exhibited a Case of Cheiropompholyx, or Dysidrosis. The disease began as small vesicles in the palms of the hands, which ran together to form irregular bullæ one inch and half in diameter. He was of opinion that the sweat ducts opened through the middle of the original vesicles. Possibly dysidrosis and cheiropompholyx were really different pathological conditions. The patient, he showed, was a confirmed dyspeptic, whom he was treating on general principles, with the local application of oleate of zinc or lead. Both the hands and feet were affected in large bullous and in small erythematous patches. In reply to the President, Dr. Crocker remarked that the sweat was acid, but the fluid from the vesicles was alkaline in reaction.

Dr. DAY read a paper "On Tubercular Meningitis and the Mode of Treatment." He commenced by asking two questions: 1. At what stage of the disease could its nature be surely recognised? 2. Is its progress affected by treatment? The premonitory symptoms were essentially febrile; then might come on varied grave signs with great rapidity, when perhaps the disease in its early symptoms had been mistaken for typhoid fever, or some other ordinary disease. An abstract was read of five cases. The first was that of a very young child, who had in the course of the disease suffered no sickness. The second case was that of a child nine years old, who had been ill twenty days, but had never suffered from vomiting. The pulse, respiration, and temperature had rapidly mounted just before death. The autopsy revealed general tubercular infiltration. The third case was that of a child two years and a half old. In this case also there had been no vomiting, but there were flushings of the face and convulsions. Early on the day of death the temperature was 99°, but towards evening it had risen to 105°. In the fourth case, a child of four years, there was no vomiting; but in the fifth there had been both constipation and vomiting. Of all the cases this was the only typical one, though the temperature never rose above 101°. Dr. Day did not regard optic neuritis as a great aid in making the early diagnosis. Congestion and haziness of the optic discs might be much more frequently discovered, though it was by no means easy to make a satisfactory ophthalmoscopic examination in an irritable restless child. As regards the treatment of these cases he would rather ask for suggestions than attempt to give any. Cold to the head often gives relief; iodide of potassium he had never found to be of any avail. He thought that the recorded cases of "tubercular" meningitis were really instances of simple inflammation.—Dr. S. MACKENZIE said it was often impossible to make a diagnosis in the early stage. He regarded a high temperature as a sign of impending dissolution. Irregularity of the pulse and retraction of the abdomen were important symptoms. In his opinion a few cases of undoubted tubercular meningitis did recover. Iodide of potassium and mercury were his usual remedies.—Dr. ALTHAUS said that a heightened temperature with a slow pulse were important aids to diagnosis. He advocated cold applications to the head.—Dr. GREEN regarded the pulse as probably the most important aid in making a diagnosis; it was very irregular, both in rhythm and force.—Dr. LEE advised caution in making a diagnosis, for many cases presented but the general and ordinary symptoms of cerebral disturbance. Experience had led him to the conclusion that true cases of tubercular meningitis do not recover. Ptosis was a most characteristic symptom.—Dr. GILBART SMITH mentioned the marked difference in the pulse rate when the child was lying down and when standing up. The ophthalmoscope was of great use in the later stages of obscure cases.—Dr. CROCKER alluded to the case with which a few tubercles may escape observation on the post-mortem examination.—Dr. DAY briefly replied. In his opinion no case of true tubercular meningitis recovered.

The meeting then adjourned.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Optic Neuritis.

A SPECIAL meeting of this Society was held on the 31st ult., when the adjourned debate on optic neuritis, opened at the last meeting by Dr. Hughlings Jackson, was resumed and concluded, the President, W. Bowman, Esq., F.R.S., in the chair.

Mr. STREATFEILD showed a boy twelve years of age with optic neuritis and enlargement of cranial bones. There was a hard but not tender prominence of the left frontal bone, and the supra-orbital arch appeared depressed. The upper eyelid was œdematous, the levator palpebræ unaffected. The swelling had been noticed for four months, and had undergone but little change. The boy was thin, complained at times of his sight, and had occasional headache, but no vomiting. Vision: right eye $\frac{6}{18}$; left, $\frac{6}{18}$; double optic neuritis: discs swollen and grey, veins engorged, arteries small. After one month's treatment by iodide of potassium vision in right eye was $\frac{6}{12}$, left $\frac{6}{9}$. Mr. Streatfeild presumed there was some growth from the lateral part of the frontal bone extending inwards.

Mr. SEBASTIAN WILKINSON showed a patient with Double Optic Neuritis and Retinal Hæmorrhages.

Mr. STANFORD MORTON showed two cases illustrative of the Co-existence of Normal Vision and Swollen Discs. Case 1. A man with double optic neuritis, vision in right eye, 0; in left, $\frac{6}{9}$, and with presbyopic correction can read Jäger 1. There was a history in this case of a blow on the head, followed by pain and muscular tremors. Ophthalmoscopically no apparent difference in the condition of the two discs. Case 2. A young woman, under observation for two months, with slight asthenopia. Both discs were swollen, but there was perfect vision—viz., $\frac{6}{6}$ in each eye, and ability to read Jäger 1. The case was remarkable for the lengthy duration of good vision with neuritis.

Debate on Optic Neuritis.

Dr. S. MACKENZIE said he spoke as a pupil of Dr. Jackson, and agreed in much that he had said. He also knew of no sign by which a "choked disc" could be distinguished from a "descending neuritis," and admitted the difficulty there was in distinguishing between neuritis due to Bright's disease and that due to cerebral tumour, and showed drawings in illustration. In one case of double neuro-retinitis, thought to be due to Bright's disease, but without albuminuria, the autopsy revealed a cerebellar cyst. In another case of double optic neuritis with syphilis and Bright's disease no coarse change was found in the brain. Another important point was the condition of the optic nerve left after neuritis, and he showed a case where lead-poisoning had been the cause of the neuritis, which, after treatment by iodide of potassium, had entirely disappeared; and another case where striation along the vessels and slight blurring of the discs remained to show the previous existence of neuritis. Dr. Jackson had drawn attention to the existence of optic

neuritis without loss of sight. He would say that the majority, or at least one-half, of the cases had no defect of sight, and hence the difference in experience between ophthalmic surgeons and physicians upon the matter. He referred to a case of epileptiform convulsions due to a tumour of the cerebellum with double optic neuritis but no defect of sight. Serious mistakes sometimes arise from want of ophthalmoscopic examination; and he knew of two cases of headache and occasional vomiting put down to malingering, but which proved to be due to tumour of the brain, where an ophthalmoscopic examination would have been of great value; any kind of change in the brain would produce neuritis. As to the manner of its production, Dr. Jackson favours the vaso-motor hypothesis, but had hardly dwelt sufficiently upon the neuritis being due to an extension of an inflammatory process from the brain. He himself had published a case where nothing was found in the brain, but there was corpuscular exudation in the optic nerves without any distension of the nerve-sheath. However, observations were wanted to prove the existence of a continuity of change from the region of a tumour to the optic nerve. Dr. Jackson thought that the fact of some patients complaining of defect of sight before neuritis appeared was in favour of the vaso-motor hypothesis. But the precursory stages of inflammation might lead to the same result, and Dr. Jackson's view that the symptoms of tumour are due to concomitant encephalitis would harmonise with the doctrine that the nerve is involved by extension from the brain or by a general condition acting equally on the brain and optic nerve. Microscopical examinations of the tissue around a tumour were wanted to clear up these points. He agreed with Dr. Jackson as to the great importance of treatment in optic neuritis to preserve sight, and thought iodide of potassium freely given was the best method. Dr. Mackenzie concluded by showing a drawing from a case where there was three years ago well marked neuritis, but now almost normal discs; and another drawing of neuritis from lead-poisoning, which would probably be interpreted as due to renal disease.—Dr. BUZZARD said that it was now many years ago since Dr. Jackson drew attention to the important points that unilateral fits and optic neuritis denoted a new growth involving the brain; and that good sight might exist with optic neuritis. Having also had the advantage of Dr. Jackson's personal instruction in the use of the ophthalmoscope, he was under the same difficulty as Dr. Mackenzie in finding but few points in Dr. Jackson's paper from which he could differ. He had brought down a patient illustrating the first of the above points; a woman who eighteen years ago suffered from pain in the head and failure of sight. She had from that time to this suffered from fits beginning in the left hand. She became blind and her eyes now show post-neuritic changes. He was certain that had this patient (the cause of her neuritis being no doubt syphilis) been examined ophthalmoscopically in the first instance and then treated, she would not now be blind. The profession was vastly indebted to Dr. Jackson for insisting upon this point. He thought that good sight was the rule in optic neuritis. He had never seen optic neuritis with cerebral hæmorrhage apart from tumour or other disease of the brain, nor had he seen it in cerebral softening. Dr. Jackson's hypothesis that the nerve condition was induced by vaso-motor action was, taking all things into consideration, the most probable explanation; but why should the optic nerve be specially singled out? One must either account for its being selected or show that it shares a derangement common to the other cerebral nerves. The optic nerve was anatomically peculiar in being bounded by the scleral ring; but was it a fact that the other nerves were unaffected? Might not a similar change in the fifth nerve often account for the pain in the head which accompanies intracranial tumour; and the vertigo by changes in the oculo-motor nerves? May not the vomiting, the slow pulse, and possibly the occasional occurrence of sudden death in these cases be due to an affection of the vagus comparable to that which in the optic nerve produces the symptom of optic neuritis?—Mr. HUTCHINSON said they should be thankful to Dr. Jackson for having strangled the "choked disc" at last. He would illustrate some of the different circumstances under which optic neuritis arose by mentioning a few cases. One was that of a patient who, two months after having acquired syphilis, complained of dimness of sight. Double optic neuritis was found with abundant effusion of lymph. It lasted six weeks, good sight being retained. There was no cerebral symptom whatever. A young lady, healthy and florid, complained of being blind in one eye; nothing was seen by the ophthalmoscope; but, on the apparently normal eye being covered, the pupil of the affected eye dilated. At the end of a week the disc of this eye was found to be covered with lymph; which cleared away under mercurial treatment. There were no cerebral symptoms in this case. Another case was that of a lady who hurried home from Italy, because whilst visiting the picture galleries of Florence she was attacked with headache, and found that the vision of her left eye was impaired. Mr. Hutchinson saw her on her arrival in England, and found the optic disc buried in lymph. This case also was treated with mercury, and there had been no symptoms of intracranial disease. In view of cases such as these did not Dr. Jackson think that some forms of optic neuritis were primary and idiopathic? It appears probable that there is a form which may be spoken of as syphilitic neuritis, and the forms of neuritis occurring in renal disease and lead-poisoning were primary inflammations of the nerve tissue. Dr. Buzzard's remarks upon the possible existence of other nerves being attacked were suggestive, and explained the sudden occurrence of paralysis otherwise unaccounted for. Did Dr. Jackson think that it was always correct to assume that the vomiting and headache were due to the same cause as the neuritis, and not that the neuritis was sometimes the cause of these symptoms? In all cases where he had seen recovery from optic neuritis the vomiting and headache had been at their height at the time when the neuritis was most intense. Many years ago he remembered a lad coming to Moorfields Hospital totally blind, with widely dilated and insensitive pupils and discs covered with lymph. No symptoms preceded the attack, the blindness coming on suddenly after working at bricklaying on a hot summer's day. There were no paralyses. Mercury was freely given, and good sight was regained; but he did not know whether any cerebral symptoms subsequently developed. These were only samples of many cases which had come under his observation when the first suspicion of the neuritis was raised by the affection of sight itself. Many years ago he had published a paper upon the occurrence of white discs in children who, at some previous time, had passed through a cerebral illness resembling tubercular meningitis. He doubted if so many cases of tubercular meningitis could have recovered, and there may have been encephalitis or meningitis in some of the cases, but others may have been instances of primary optic neuritis. Analogous cases occurred sometimes after the exanthemata. Dr. Waddilove had described cases of optic neuritis following measles; and lately he (Mr. Hutchinson) had seen a girl, eighteen years of age, with pale discs, who had had no brain illness, but when a child had been attacked with measles, which "went in" very rapidly, and she became almost insensible. Probably this was an attack of some form of meningitis or encephalitis with optic neuritis, the effects of which remained in the pallor of the discs. Mr. Hutchinson concluded by expressing the great obligations he was under to Dr. Jackson for his teachings on this important subject.—Dr. GOWERS said he would chiefly speak on the origin of optic neuritis. Anæmia might lead to it. He had recorded some cases in chlorotic girls, and had found the neuritis disappear in the course of two weeks under treatment by iron. This showed that a general blood condition may lead to inflammation of the optic disc. In cases of Bright's disease, in which the optic neuritis exists without retinitis, there may be very prominent head symptoms, and he recalled one case supposed to be cerebral tumour. But the characteristic white dots were present in the retina, and the urine contained a large quantity of albumen. The occurrence of the neuritis and of the cerebral irritation in these cases may be due to the altered condition of the blood. Dr. Jackson had confirmed Mr. Couper's opinion upon the dependence of some cases of optic neuritis upon hypermetropia. When the neuritis is considerable there is hypermetropia; it was so in the cases of anæmia to which he had referred; but the neuritis was more than the hypermetropia could account for, and, moreover, cleared away under iron. The difficulty of diagnosis between optic neuritis from cerebral disease and that from Bright's disease only exists when the neuritis is subsiding, and leaves white spots at the places to which the inflammation has extended. In Bright's disease the white spots are always at a distance from the inflamed papilla, and should be sought for by the direct method. From observation of several cases Dr. Gowers thought that in the early stages

the inflamed papilla was much paler in meningitis than in cerebral tumour; but in subsiding neuritis there is pallor of the disc under either condition. He was surprised that Dr. Jackson had not mentioned chorea among the conditions with which optic neuritis may be associated; for he (Dr. Gowers) had given Dr. Jackson as his authority for such association. In one case of chorea examined by Dr. Gowers there was also Bright's disease, and he had seen another case of chorea where there was marked neuritis. As to choked disc, his own observation was opposed to the idea that there was any intensification of pressure at the sclerotic ring; the vessels pass through the ring entirely unconstricted. They become "choked" in the swollen papilla, not behind it. Might not Mr. Hutchinson's cases be instances of retro-ocular neuritis? Some time ago he met with a patient suffering from intense pain in the head, with no loss of sight, and with the least trace of neuritis, which rapidly increased, whilst paralysis of one orbital muscle appeared. These symptoms subsided, but before that the other nerve became slightly affected. Dr. Jackson had put forward the difficulties in the way of the vaso-motor theory. But is there any ground for believing that inflammation ever results from reflex vaso-motor action? The only two instances that occurred to him were renal hæmaturia following catheterism, which might be accounted for by the immediate dilatation of the renal vessels, and not by inflammation; and the other was the occurrence of duodenal ulceration after severe burns, a remarkable phenomenon, the only instance in which actual tissue alteration followed from nerve irritation at a distance. Again, it would be difficult to believe that a reflex effect would be confined to the vessels of the optic disc; it should equally affect the cutaneous vessels, so that were the vaso-motor hypothesis true we might expect an intermitting blush to be produced by cerebral tumour. Herpes zoster afforded no analogy, for the change was limited to the area supplied by the affected nerve trunk. The distension of the optic sheath was an important fact; it was very frequent, and some surgeons (e.g., Mr. Power) had punctured the distended sheath; and it might reasonably be thought to have some influence in the production of the papillary change. The distension of this great lymph channel may intensify a neuritis although it may not cause it. In the case of a child ten years of age admitted with acute cerebral symptoms, old choroiditis, acutely inflamed discs with hæmorrhages, there was abundant syphilitic disease of the arteries of the brain and an extensive hæmorrhage. The optic sheaths were greatly distended, the bones of the skull and orbital plates were thickened, so that the optic foramen was constricted, and this condition probably determined the great distension of the optic sheath. In many cases there was evidence of descending neuritis; definite changes in the optic nerves extending from the brain in meningitis. In one case of tumour of the frontal lobe there was but slight change in the optic nerve, but higher up very marked changes. There is then inflammation around a cerebral tumour, and in the optic papilla (a part prone to inflammation, partly on account of its anatomical conditions), distension of the optic sheath, which may intensify the papillitis, and traces of inflammation more or less marked along the optic nerve to the brain. The change in the nerve-trunk might be barely perceptible, and yet suffice to light up an intense papillitis. May not a like change occur throughout the entire brain, and explain the other symptoms of the tumour? Taking the facts that are known, optic neuritis may be held to be due to (1) a condition of irritation in the brain, (2) distension of the optic sheath, (3) the change reaching the papilla and lighting up inflammation there. But the vaso-motor theory is as incapable of proof as it is of disproof.—Dr. BROADBENT said that optic neuritis was sometimes produced apparently by suppression of the catamenia. A girl who had suffered for two years from vomiting, headache, and double optic neuritis, which passed on to atrophy, was first attacked on the sudden arrest of the catamenia. With the restoration of the catamenia, the headache, vomiting, and a peculiar mental condition ceased. In another case of optic neuritis, no coarse disease in the cranium was found after death; no evidence of inflammation; only considerable ventricular effusion. He believed that all the phenomena of optic neuritis were best explained by optic ischæmia—pressure on the nerve through effusion into its sheath. He had never seen a case in which the disc could be supposed to be covered with lymph; the structures are swollen, and the vessels buried in them. He believed that fluid was forced by intracranial pressure into the sheath of the optic nerve, and that this strangled the disc. In every one of these conditions—in anæmia, lead-poisoning, and tumour—there is increased intracranial pressure. The only reason why neuritis does not invariably occur in renal disease was the existence of very high arterial tension. The two conditions of intracranial pressure and of fluid to be forced into the sheath must be present. Many cases of increased intracranial pressure occurred without optic neuritis; in such cases there is no fluid to be forced into the sheath, or obstacles to its entrance. In some cases of great ventricular effusion the whole surface of the brain is dry and sticky; in such cases one cannot expect to find meningeal fluid. The only case in which he had seen unilateral optic neuritis was one where a tumour was so situated as directly to prevent fluid passing along the sheath. The size of the tumour did not determine the occurrence of optic neuritis; but the amount of vascular disturbance around it. In hæmorrhage there was no great increase of intracranial pressure—the effused blood being substituted for so much cerebro-spinal fluid. Mr. Power had relieved the symptoms of neuritis by incising the distended sheath. He (Dr. Broadbent) had never attempted to distinguish between ischæmia and neuritis. The acceptance of the vaso-motor hypothesis would only increase the difficulties of the subject.—Dr. BRAILEY would draw a distinction between simple swelling or œdema of the papilla and optic neuritis going on to atrophy. He had seen many cases where optic neuritis occurred from local disease—e.g., tumour of orbit. Again, in intra-ocular tumours, such as sarcoma of the choroid or glioma of the retina. Optic neuritis sometimes occurs associated with wound or ulcer of the cornea, the inflammation spreading along the sclerotic to the nerve. Then there were the cases where embolism produced acute inflammation of the optic nerve and resulting glaucoma. These are instances of local causes producing the inflammation which spreads along the fibrous tissues, a strong reason for believing in an inflammatory and not a vaso-motor origin of the condition.—Dr. WALTER EDMUNDS pointed out that the fluid within the sheath was produced by the inflammatory process, and believed that anatomical facts were in favour of there being a descending neuritis—the evidence of inflammation being traceable along the optic nerve as high as the chiasma in cases of tumour and meningitis. The inflammatory process spread along the bloodvessels, and not along the trabeculæ or nerve fibres, for it is confined to the papilla. His own observations led him to believe that in all cases there was some basic meningitis about the chiasma.—Dr. HUGHLINGS JACKSON briefly replied, and after a cordial vote of thanks had been awarded him on the motion of the President the Society adjourned.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

AT the meeting on Wednesday, March 16th (Thomas Edgelow, L.R.C.P., President, in the chair), Mr. W. A. N. CATTLIN drew attention to a courteous letter he had received from the Secretary of the Royal College of Surgeons of England, asking him to correct one or two slight errors into which he appeared to have fallen in his recent address "On the Imperfections of the Dentists Act" when alluding to the licence in midwifery. It would appear that out of the three unqualified persons who were examined for the licence in midwifery, only one (*not three*) received it, and two were rejected. From the Regulations respecting the licence (a copy of which accompanied Mr. Trimmer's letter), he ascertained the fact that candidates who were members or licentiates of other Colleges, or who had passed through a curriculum of education prescribed by Rule VI., were up to 1875 entitled to be examined for the licence in midwifery, so that he was wrong in saying only members of the College could receive it.

Mr. EDWARD BALTLETT read a short paper on the four following cases:—Case 1 was that of a girl aged twenty, with a supernumerary tooth posterior and between the central incisors, and which appeared at the same time as the centrals.—Case 2 was that of absence of the second tricuspid, which was accounted for by the posterior deciduous molar being forced up nearly into the antrum by the closure of the first bicuspid and molar over it. This (the crown of the molar) Mr. Bartlett removed, which felt on exploration

like dead bone, being covered with tartar.—Case 3. Two very large supernumerary teeth and a lateral, which he had removed from the mouth of a man, aged thirty-three, who had a third central incisor, undistinguishable from the normal ones.—Case 4 occurred in a young lady, aged nineteen, in which all the permanent teeth were absent, with the exception of the two centrals, two canines, and two molars, some of the temporary teeth remaining in their position.

Mr. HAMILTON CARTWRIGHT made some remarks on the treatment of Rigg's disease, consisting of the destruction of the periosteum of the teeth, absorption of the alveoli, and ultimate loosening and loss of the teeth. He said that it generally commenced in an unhealthy condition of the gums, and that he believed the deposit of tartar to be secondary to the disease; the deposits of the saliva pocketing between the separated gum and the teeth. Of course the first and most important matter was to remove the tartar effectually, but he still held that much might be done by a very, so to speak, "heroic" treatment with the knife and escharotics used alternately. Mr. Hamilton Cartwright then showed a most remarkable case of the Jaw of a Dwarf, about three feet high, and compared the denture with that of the American Midgets. The dwarf was the child of wealthy parents, and grew normally for some months, when the development of its body became completely arrested, whilst that of the head and brain continued to a great extent. The boy is about sixteen years of age and highly intelligent, having recently gained a prize for French at school, and having a great taste for study generally. He walks, however, with difficulty, his head being so much larger than his body. His teeth, unlike most dwarfs, are not deficient as in the case of the Midgets, but consist of a perfectly formed *first* set. In the upper jaw only the first molars had been shed to give place to the bicuspids, which are nearly erupted, whilst the six-year old molars are just appearing. In the upper jaw there is a perfect set of milk teeth without any sign of caries. In conclusion, he wished to draw the attention of the Society to the analogy existing between the teeth and dermic structures in their development, and that, as a rule, both the hair and teeth were deficient in dwarfs; but that in this case the hair was as perfect as the teeth, the only peculiarity in the latter being the persistence of the first denture up to the age of sixteen years.

Reviews and Notices of Books.

Lectures on Diseases of Bones and Joints. By CHARLES MACNAMARA, F.R.C.S. Eng., Surgeon, and Lecturer on Surgery at the Westminster Hospital; Surgeon to the Royal Westminster Ophthalmic Hospital, &c. Second Edition. London: J. and A. Churchill. 1881.

THE present edition of this work appears in a considerably altered form. Instead of being limited to a consideration of diseases of bones as before, Mr. Macnamara has included lectures on diseases of joints, and thus the volume has doubled in size, and we may also add in value and importance. There can be no doubt that this alteration in its scope is in accord with the dictates of scientific reason. Bones are, both physiologically and pathologically, the chief structures entering into so-called "joints"; it is impossible to separate fully the diseases of one from the other, and a thorough comprehension of the pathological changes in bone is one of the most essential, if not *the* essential condition of a sound knowledge of diseases of joints. These lectures are not formal, set, clinical lectures, but are an embodiment of the daily instruction given in the wards, with brief records of cases under observation. Mr. Macnamara goes into the question of the occurrence of epiphysitis more fully than before; he maintains that in young children the actively growing tissue at the line of junction of bone and cartilage is very likely to be affected by inflammation, which, leading to separation of the epiphysis, may extend to the periosteum and medullary tissues, and so cause necrosis; he prefers to consider many of the cases of suppurative periostitis of children as really cases of epiphysitis. Several interesting cases bearing upon this affection are cited. In the lecture on syphilitic disease of bone—which is quite up to date, and describes fully the changes to which Drs. Parrot and Barlow have drawn attention, as caused by inherited syphilis—we have an explanation of the frequent and special affection of the vault of the cranium in this malady. Mr. Macnamara points out that not only are these bones ossified from membrane, but are developed from the epiblastic layers of the embryo, and may be regarded as dermal appendages; also that their affection is an illustration of the fact that syphilis and other constitutional diseases tend to affect certain groups of tissues ontologically connected. The author is, however, mistaken when he speaks of the choroid coat of the eye as developed from the epiblast; it is formed from a part of the mesoblast.

Coming to the lectures devoted to diseases of joints we have only space to notice two points. The first is the author's classification of cases of synovitis into serous, muco-purulent, and purulent. Objection may fairly be taken to these terms, but not to the distinction drawn; and even though it may be convenient for purposes of teaching to show the analogy between, let us say, varieties of conjunctivitis and synovitis, yet if words are to have a meaning it must be inaccurate to speak of any product of synovitis as muco-purulent. Perhaps the terms "simple," "semi-purulent," and "purulent" would serve. Further on, in the lecture devoted to disease of the hip, we meet with an attempt to range the various cases under three heads, those beginning as synovitis, those starting as epiphysitis, and those at first chronic osteo-myelitis of the articular ends of the bones. This is at least a great advance upon the older method of grouping the cases by the bone primarily and chiefly affected as either femoral or acetabular. In our present knowledge, or, rather, want of knowledge on this point, any classification on a pathological basis, however much to be desired, must be received with caution, and it can hardly be expected to command general assent. Moreover, a pathological classification which is nothing more, and cannot be clinically applied, may be interesting, but is wanting in practical value and fails at the test which must ultimately be applied to it. Can we then separate clinically Mr. Macnamara's three groups of cases? Mr. Macnamara says that cases with a slow ill-defined early course and very chronic development are cases of osteo-myelitis; those characterised by severe pain coming on soon after an injury and local heat and fulness of the joint are cases of synovitis; while those cases which occur in quite young children, with severe pain, great constitutional disturbance, early rigors and evidence of suppuration, are instances of suppurative epiphysitis. This distinction appears sound and practical, but the question still remains, are *all* the cases included? Are there not cases of very slow granular synovitis at first indistinguishable from and later on leading to chronic osteo-myelitis? This subject, however, is too large to be dealt with fully here and now. Suffice it to add that the volume before us will doubtless prove acceptable to a large number in the profession, for it is well written, and is a happy combination of scientific and practical surgical teaching.

Experimental Chemistry for Junior Students. By J. EMMERSON REYNOLDS, M.D., F.R.S., Professor of Chemistry in the University of Dublin. Part I. Longmans and Co. 1881.

IN these days of "little books," which are often insufficient, and issued only for the purpose of cramming, it is a relief to come across a really good introductory work written with a high purpose. This volume does not pretend to teach much, but what it does teach it teaches thoroughly. The system pursued by the author is designed to lead the student through a series of connected experi-

ments and to assist him in the interpretation of his results, and also in devising modes of testing the validity of the conclusions drawn from them. So that whilst acquiring a tolerable acquaintance with facts the student receives a certain amount of training in purely experimental methods. This is the basis on which all scientific training should rest; and no learner ought to be permitted to proceed to the higher branches of study till the A B C has been thoroughly mastered. We wish this little volume every success. For candidates preparing for examination in elementary chemistry at the matriculation at the London University or the Oxford and Cambridge local examinations it will be found a useful guide.

Lectures on Syphilis. Delivered at the Harveian Society, December, 1878. by JAMES R. LANE, F.R.C.S., Surgeon to St. Mary's Hospital, and Lecturer on Surgery; Consulting Surgeon to the London Lock Hospital. Second Edition. London: J. and A. Churchill. 1881.

THE fact that the first edition of this book has been out of print for some time is sufficient evidence that the lectures meet a real want. They are a simple statement of the main facts about syphilis which may be considered established. From the view that all forms of venereal disease are modifications of one great malady a good deal of confusion has arisen, and the reasons for separating them into three distinct classes are clearly given, as well as important facts in reference to the infective power of syphilitic fluids of different kinds.

New Inventions.

POCKET MAGNETO-ELECTRIC MACHINE.

A MINIATURE Magneto-Electric Machine, constructed by Messrs. W. C. Longmate & Co., of Arundel-street, Sheffield, has been brought under our notice by Dr. C. Nelson Gwynn, of Sheffield. Some of the improvements were suggested by Dr. Gwynn, but the mode adopted for carrying them out is due to Messrs. Longmate and Co. The motion and multiplication of speed and power are on a new principle. There

are three beveled mitre cog-wheels, one of which is fixed to the magnet, one fast to and revolving with the band-wheel, and one fast to the shaft turned by the handle. These, combined with a fast and loose shaft or spindle, become so manipulated, that, although the number of teeth in the cog-wheels is the same, yet the driving-wheel is propelled at twice the speed of the handle and shaft. The reason of this is that during the revolutions of the shaft in a rectilinear direction there is also a transverse revolving property in the centre wheel which turns the driven cog-wheel twice round. By the application of this principle a very small and light pocket magneto-electric machine has been obtained, which possesses ample strength and is worked with considerable ease. The magnets are nickel-plated to prevent rust. The machine answers exceedingly well, and will be a great boon to practitioners, being easily carried in the hand, and therefore more likely to be available on an emergency than the larger instruments in common use.

HYGIENIC SPONGE-BATH.

A VERY useful bath is made by Messrs. Groom and Co. It is so constructed as to provide a stage on which the person using it may stand out of the water, supposing he wishes to use either warm or cold as a lavement while avoiding the immersion of the feet. There is a well in the bath for the water, from which it can be dipped by sponge or bowl. This bath will prove most acceptable for general purposes, and is likely to be peculiarly useful for special purposes.

DISINFECTANT HOSPITAL BLANKET.

ACTING upon a suggestion first made some years ago in THE LANCET, to the effect that paper should be used in the construction of bedclothes, Messrs. Henry and Leigh Slater, of Manchester, have produced a cheap blanket of which the staple material is paper. It is perforated for ventilation, which may or may not be necessary—we are inclined to think not. The blanket is not altogether noiseless, as it is stated to be; but may be readily made so by a little manipulation, or would be so at the outset if different paper were employed in the manufacture.

THE CATGUT LIGATURE.

To the Editor of THE LANCET.

SIR,—In your report of the meeting of the Royal Medical and Chirurgical Society on February 8th, some doubt is thrown on the power of a catgut ligature to sever the middle and inner coats of an artery. One speaker says, "if they (viz., the ligatures) had not yielded the coats would have been completely divided." I have had considerable experience in the experimental ligature of healthy arteries in their continuity by carbolised catgut of average calibre, and have always found that with a legitimate amount of force the middle and internal coats were thoroughly divided, the solution of continuity taking place at once, and not after a certain interval; an observation that seems to prove that any subsequent yielding of the ligature is of no importance—as far, at least, as the mere division of the arterial coats is concerned. The belief was also expressed, that "if the inner coat were not divided no clotting would ensue," and in your annotation you say, "If these coats were not divided there was nothing to excite the formation of a thrombus." I can assert from observation that if a healthy artery be compressed in its continuity by a flat-bladed instrument, such as Dieffenbach's clip, a fairly firm clot forms above and below the point of pressure in less than twenty-four hours, though the walls of the vessel had merely been brought into apposition without being wounded. As the clot forms so quickly, and has acquired a certain degree of firmness before suppuration has begun in a septic wound, it is rather difficult to understand how antiseptic precautions can have any deterring effect on the thrombus, in its early existence at least. The marked differences in septic and aseptic cases belong to a later period. Whether the final occlusion of the vessel is brought about by changes in its coats, or by organization of the clot, or whether it is shared in by both, is a question too wide and difficult to be discussed at present; and I am merely desirous of stating my opinion, founded upon experiment and dissection, that catgut ligatures can be depended on for severing the middle and inner coats of an artery, and that, however advantageous this severing may be for the ultimate obliteration of the vessel, simple compression, and not a wound, is all that is necessary for the formation of a thrombus.

I am, Sir, your obedient servant,

Poona, March 16th, 1881. E. D. MACKELLAR, M.B.

THE LANCET.

LONDON: SATURDAY, APRIL 16, 1881.

THE long-expected Naval Medical Warrant has at last been published. It fulfils the promise made by Mr. TREVELYAN of a scale of pay somewhat higher than that granted to the army medical officers, "in order to counterbalance the disadvantages of the two services." But we are doubtful whether in other respects the changes introduced by it will be deemed altogether satisfactory by the department. The principle of compulsory retirement of administrative officers at the age of sixty, as in the Army, has been adopted, but in addition to this they are to be placed on the retired list at any age if they have not served for five years, without any reservation as to their non-employment being compulsory or voluntary. The examination of surgeons previously to promotion to the rank of Staff-Surgeon and after completion of eight years from date of entry, is still retained, though abolished in the Army. No grade has been established corresponding to that of Brigade-Surgeon, but "in all matters wherein the Army and Army administration are concerned, Fleet-Surgeons to rank with and as Brigade-Surgeons." We confess that we are at a loss to understand why Fleet-Surgeons, who are in all respects on a footing with Surgeons-Major of twenty years' service in the Army, the rank being granted to all Staff-Surgeons "on completion of twenty years' service," should take precedence of their military brethren, but we presume it is one of Mr. TREVELYAN'S sops "to counterbalance the disadvantages of the two services." It can be of very little advantage in any way. Gratuities are to be given to Surgeons and Staff-Surgeons who retire before completing twenty years' service, and these increase in amount every four years, instead of five as in the Army. These gratuities and the rates of retired pay after twenty years' service appear to be nearly identical with those of the Army Medical Department; but we observe a note as to the retired pay of Fleet-Surgeons which requires explanation. It is attached to all the rates for that grade. "To obtain this rate an officer must hold the commission of Fleet-Surgeon." Is it possible to be a Fleet-Surgeon and to be placed on the retired list as such without holding the commission of that rank? If so, under what circumstances may this happen? If not, what is the meaning of the note? All officers on the retired list under the age of fifty-five will be liable, as in the Army, to be called upon, till they attain that age, to serve in time of declared national emergency, in a rank not lower than that held on retirement. With a view to diminish the hardship arising from compulsory half-pay, the Warrant allows time on half-pay to count as one-third service for increase of retired pay, but not for any other purpose. It is to be regretted that the authorities did not see their way to make arrangements for the abolition of the system of half-pay on a ship being paid off, by employing the medical officer in one of the naval hospitals till his services were again required afloat. Provision is made in the Warrant for an allowance "to officers giving the course of instruction to Surgeons on first appointment to the Naval Service: to a medical officer of Haslar Hospital, £150 a year; to a junior medical officer of the same hospital assisting him, £50 a year." We cannot but think that the withdrawal of naval candidates from Netley is a grievous mistake as regards both the interests of the Service and those of the young officers. The plan now proposed was tried many years ago at Haslar, and we have reason to believe was a complete failure. That a system of effective sanitary and special teaching, such as has been in force for many years and still is most successfully carried out at Netley, will be introduced at Haslar we do not believe. It has been suggested that the withdrawal has been decided upon in accordance with "representations made by naval officers, who thought that association with military medical officers at Netley tended to make the naval doctor discontented with his position and prospects." If this be so, the authorities at the Admiralty have taken a false step. The Service will undoubtedly deteriorate in efficiency from the loss of the special instruction given in the Netley School, and this will react in the way of causing the better class of medical students to hold back from entering the Naval Service. We are afraid that these half measures of the Admiralty will have but little effect in increasing the number of really good candidates for the Department, and that the new Warrant will influence few to come forward as candidates but those who consider money to be the only, or at least the most important, consideration. As the Warrant states that existing regulations as to relative rank are to remain in force, we presume medical officers will be entitled to "cabins according to their relative rank." We have on previous occasions called attention to the fact that the orders of the Lords of the Admiralty on this point are often practically ignored by captains. We would therefore suggest to Mr. TREVELYAN that if he desires any degree of success to attend his new Warrant, he should take measures to enforce this rule, and to remove from the minds of medical officers the strong feeling of injustice which exists in consequence of this permitted violation of the Admiralty Instructions.

"WHY may we not meet professed homœopaths in consultation?" is a constantly recurring question, to which recent events have given an unusual degree of urgency and importance. The answer is a dual one, and apparently paradoxical. We decline to have professional intercourse with professed or reputed homœopaths for one or both of two reasons—either because they are believers in a method of therapeutics which is at once fantastical and absurd, or because they are *not* believers; in other words, either because they are true disciples of HAHNEMANN, or because they are *not*. In one instance the objection is scientific, in the other it is ethical. Despite the prevarications and protestations of those half-hearted professors of homœopathy whom HAHNEMANN and his stricter adherents have denounced by the name of "mongrels," homœopathy is logically Hahnemannism or nothing. From the rules laid down by HAHNEMANN, there can be no material departure without a practical abrogation of the doctrine of homœopathy itself, and with it of the so-called *Law of Similars*. This cannot fairly be gainsaid. A recent exponent of pure homœopathy said: "HAHNEMANN discovered

founded, and elaborated a system of healing by medicines; to this system he gave the name of *Homœopathy*. In his 'Organon' he gives the plainest and most minute rules for the practical application of his teachings, and he challenges the medical profession to put his teachings to the test. It would seem, therefore, a very simple matter to define homœopathy; it would seem also self-evident that, while every physician has a right to practise that system of medicine which he deems best; on the other hand, no one has a right to call himself a homœopathician who does not firmly believe in HAHNEMANN'S practical rules, and strive in every case to carry them out to the best of his ability; and it would seem only consistent that the name of homœopathy should not be appropriated to any other system than that to which HAHNEMANN gave it; yet that which would appear to be self-evidently just and true has not been followed, and HAHNEMANN'S fundamental rules are daily violated by those who falsely call themselves his disciples." This is, at least, an intelligible, if not an intelligent, position. Pure homœopathy differs from scientific medicine by claiming to be a complete and final system of therapeutics, based on constant and universal laws. These laws, as defined by HAHNEMANN, are chiefly two: First, the Law of Similars; and second, arising out of this, the law of dynamisation of medicines. It is not now necessary seriously to combat either the fanciful hypothesis on which the supposed law of similars is based, that "disease is a spiritual dynamic derangement of our spiritual vital principle," nor the extravagant notion that "dynamisations" of drugs "are real awakenings of the medicinal properties that lie dormant in natural bodies during their crude state, which then become capable of acting in an almost spiritual manner upon our life; that is to say, on our percipient (sensible) and excitable (irritable) fibres." This has been already accomplished by the unanimous condemnation of scientists, philosophers, and practical physicians. It is enough for our purpose to call attention to the fact that obedience to the law of similars has led homœopaths to give dilutions of bugs "to cure the inflammation arising from bug-bites," cholera evacuations for the cure of cholera, and the expectoration of phthisical persons for arrest of consumption; and that the belief in "dynamisation" has carried some of the disciples of HAHNEMANN to the last stage of impudence or imbecility of claiming to have obtained distinct results, not only by means of olfaction or smelling globules containing the decillionth of a grain of a drug, as HAHNEMANN asserted, but also by means of medicines contained in *closed* vessels held in the hand. These ridiculous pretensions can have no place in scientific medicine, and, therefore, practitioners of scientific medicine can have no professional association with those who advance them. The objection to a profession of homœopathy is, however, in the present day ethical rather than scientific, because the scientific fallacy has been for ever exploded. Few professed homœopaths nowadays owe allegiance to HAHNEMANN, still less do they accept homœopathy as a complete system of therapeutics. It will be remembered that about four years ago the Vice-president of the British Homœopathic Society, speaking for himself and a certain section of his colleagues, wrote: "We admit, first, that the views expressed by HAHNEMANN are often extravagant and incorrect; secondly, that HIPPOCRATES was right when he said, 'Some diseases are best treated by similars and some by contraries,' and therefore it is unwise and incorrect to assume the title homœopathist; thirdly, that although many believe that the action of the infinitesimal in nature can be demonstrated, its use in medicine is practically, by a large number in this country, all but abandoned." (See THE LANCET, June 2nd, 1877, p. 817.) The plain meaning of this statement is that the law of similars has broken down, and that "the homœopathic therapeutic maxim" of infinitesimal doses, which HAHNEMANN alleged was "not to be refuted by any experience in the world," is false. The retention of the name of "homœopath" by a medical practitioner under such circumstances is, therefore, misleading, if not actually unjustifiable, since it has no scientific or logical significance. Those who persist in retaining the name have themselves to blame if they are said to do so for the purpose of attracting a certain section of the lay community. Pure homœopathy has been condemned by the best minds as false and absurd, and without any scientific sanction. We cannot consult with the consistent homœopath (if for no other reason), because his notions of pathology and therapeutics are fundamentally contradictory and antagonistic to ours; nor can we consult with the professed homœopath, though he may occasionally practise according to the principles of scientific medicine, because he employs a name that, in his case, possesses no scientific meaning, and is used for sectarian purposes.

CONTINUING our observations upon the question of "Blood Diseases" and the "Germ Theory," commenced in our issue of the 2nd inst., we now proceed to the consideration of "Diseased Germs." Before entering, however, upon our more immediate subject, it is well to refer to certain known facts in the natural history of germs—because upon these much of our reasoning in respect to diseased germs must be based. To begin at the beginning, then, we may assume that all animal and vegetable individual life begins in a germ. Whether in the higher animals this germ is supplied by the male in the spermatozoon, or by the female in the ovum, or by a conjunction of both, it is not essential to our purpose to decide. This primordial germ is endowed potentially with the capacity for forming all the structures of varying character of which the fully formed individual consists—blood, skin, bone, hair, teeth, muscle, &c., each in its own place and proportion—to the extent that the mature individual, exactly in size, weight, shape, &c., follows the archetype of its race; but beyond this conformity in all parts, it has impressed upon it, and passes on to the individual made up of its successive generations to a remarkable extent, the physical and structural specialities of its parents. It is impossible to see in this germ of different animals any distinction, still less in different human individuals. Yet does each germ somehow through its long succession of generations and formations of organs pass on more or less of the characteristics of its parents, not merely of colour in hair and eyes, in shape and feature, but of temperament and quality of the organs into which it is differentiated, and of some of the psychical endowments—its highest and its most exalted perfection; the parents are indeed even more the foreshadows of the child than "the child is father of the

man." Not more certainly will the germ of the negro develop into a negro with a black skin, than the germ of a negro and a white develop into a mulatto. But this is not all. The sins of the fathers truly cling to the children to the third and fourth generation, and there are unhappily still so many diseases of hereditary character that we must allow that just as the germ has impressed upon it more or less of the mental and bodily characters of its parents, so has it the morbid or diseased characters, which it likewise passes on to be more or less evidenced in the future and more or less matured individual. We might fairly argue that the germ in such case was diseased. We have at hand, however, an obvious instance. A syphilitic father, with no present outward evidence of syphilitic disease, impregnates a pure mother, and a child is prematurely born covered with syphilitic eruption; a second pregnancy follows, and the child is born mature but dead; a third, and the child is born mature and apparently healthy; the only symptoms in the mother being during the first pregnancy a scurfiness of the scalp or falling off of the hair. Can we but believe that the germ of the father, or his portion of it, impressed diseased qualities on the resulting germ-development, which involved the morbid conditions of syphilis in, and the premature death of, the fœtus? As to the father, the first link in this chain, the matter discharging from an infecting sore coming in contact with an unprotected or denuded surface, produced an altered action in the growth and development of the surrounding cells, the result of which is destructive ulceration instead of healing. The elements from this sore are conveyed to the nearest lymphatics; here they produce morbid action with abscess of the gland, the discharge being inoculable,—or the infected cell-elements of the gland pass on till they reach the circulating blood, when the individual becomes or is syphilised—that is to say, the morbid influence pervades his whole body, causing alteration from healthy growth and normal structures in numerous parts and tissues with altered properties, as we have seen, even in the sperm-cells. That the morbid effect must be impressed on the cells and germs seems incontestable, because it must be particulate, as we have shown from previously recited experiments; nor, indeed, can we conceive it to be in solution in the fluid of the blood, ever changing by additions and subtractions as this is, and yet lasting as the morbid effect does. However, were the poison in solution in the fluids of the blood its action must be of chemical nature, a supposition set aside by some experiments of Professor LISTER, who showed that by using almost infinitesimal portions of infecting fluid, but in equal quantities, in some cases infection followed, and in others not. The chemical effect must be uniform, but as the cells vary in quantity in the portions of fluid, success might reasonably be expected to follow in those portions only which contained cells and germs, and not in others which in all probability would not.

Nor is there any difficulty presented in the passage of these cells or germs throughout the body. It is a well established fact that the colourless corpuscles and leucocytes of the blood pass freely through the walls of capillary vessels, and take an active part in the increased proliferation of cells in and around an inflamed spot; but further proof of the possibility of such passage is afforded by the transmigration of the germinal forms of many of the entozoa, and their development in situations they could only have reached through the bloodvessels. Again, we see in many instances, as mentioned in regard to syphilis, as soon as the local affection is established, the next manifestation is in the nearest lymphatic gland. This gland becomes affected, and its leucocytes entering the blood-current pass it on to the system generally, or, as is frequently the case, to form secondary deposits. Sometimes, however, we see infection of the system aborted by the formation of an abscess in the gland closing the further passage of the diseased cells into the blood or system, the matter formed in and discharged from this abscess being itself imbued with the poison, and capable of inoculating the individual or others, for in this case the individual is not protected. A very interesting illustration of this fact was brought to light in the researches of TOUSSAINT and others on the fowl cholera poison—that of anthrax. It was seen that when the contagium was cultivated, and portions were inoculated, in many instances abscesses formed, the animal in such case showing none of the general effects of the poison, only the abscess. If the animal were reinoculated, even from the contents of his own abscess, and no fresh abscess formed, he then manifested all the symptoms of the disease, and, moreover, that when the abscess discharged it was inoculable to others, for even if the discharge came in contact with the food of fowls it produced in them the disease in its entirety.

So many diseases have been proved by experiment to be inoculable by the blood of the infected that we need hardly quote instances, but there are others again in which the discharge from one mucous membrane produces a like specific inflammation in another—as, for example, gonorrhœa and gonorrhœal ophthalmia; but in this instance we seem to approach the edge of the circle in our classification, for slight as is the constitutional affection in gonorrhœa as compared with that of syphilis, it is yet indicated in gonorrhœal rheumatism, and its proneness to induce chronic joint disease, unless, indeed, we consider this, like scarlatinal rheumatism, merely sympathetic or pyæmic. It is, again, a curious fact that we observe in certain of these diseases a tendency especially to affect particular parts, as if they were the foci from which the poison was most easily passed out of the system, and that not only in particular membranes or tissues, but in special parts of such tissues. Not to go into the matter generally, we may mention the salivary glands in mumps, the intestinal glands in typhoid, the throat and tonsils in scarlatina, the nasal membranes in glanders, the salivary glands in hydrophobia, whilst others again, as skin diseases, manifest a decided tendency to symmetrical distribution. We must remember also how prone all developments in any situation are to return to their primal condition under morbid impressions, in some cases, for instance, the proliferating cells return to their embryonic form, in others to a state quite different from the tissues around, in others exactly like them; in some cases, in fact, the inflammatory product is a simple hypertrophy, in others it consists of heterogeneous formations. In thus insisting, however, upon the importance of the germ element in so many diseases, and subsequent investigations will show it to be far more extensive, we do not in the least ignore the effects of morbid or diseased blood itself. The

very diseases we have most frequently alluded to are, indeed, characterised by such conditions as have caused them to be classed as blood diseases, nor can we imagine that so all-important a fluid—the reservoir of all pabulum of growth and development, as well as the all-pervading current through which is supplied the oxygen necessary to the continuance of vitality, and through which all the interchanges necessary to the production of vital endowments are effected—can possibly be unaltered by the presence in it of septic elements from without, still less by septic conditions of its essential organisms. On the contrary, we believe that the more or less severe constitutional effects of the poison in the exanthemata are due to the action of the septic germs on the cell organisms of the blood; and further, that the "typhoid conditions" that so often follow these, after the specific effects of the contagion are passed, even sometimes after their elimination has been effected, are due to the altered conditions of the blood perhaps more than that of the cell organisms themselves. We see a case of scarlatina, for instance, pass through its regular course with no very acute symptoms, and no or very slight throat affection (certainly no ulceration), yet a fortnight or three weeks afterwards, when even desquamation has ceased, typhoid symptoms set in with all the conditions of grave blood infection, eventuating in scarlatinal rheumatism, or purulent effusion into the pleura or pericardium, or abscess in the lungs. This can hardly be a reinoculation of the specific poison of the disease, and if not, to what shall we ascribe it but to either the morbid condition of the blood cell-organisms, or to a changed condition of the blood effected in it by the action of the specific *materies morbi*? Do we not know also that there are certain conditions in which the blood is so changed as to be peculiarly susceptible to morbid influence? for example, the puerperal condition. BRAXTON HICKS has shown that in 65 per cent. of a large number of cases puerperal fever was due to exposure to septic influence. Does not the surgeon know that to operate on a patient suffering from albuminuria is to expose him almost certainly to erysipelas or pyæmia? Does not the diabetic condition of old people induce carbuncle and abscess; hæmorrhage a tendency to phlegmasia dolens? Nor is our faith yet abolished in respect to diatheses and constitutional conditions as manifestations of blood disease. We well know how weak and stunted our plants are in poor soil, how they dwindle in confined space and overcrowded greenhouses, and how soon they become the prey to blights and parasites. So exactly of children reared on scanty food in close rooms, and with limited hygienic advantages; their development is imperfect, physically and morally; they are wanting in stamina, and are prone to degeneration. Their cell formations, and therefore their organs and tissues, are not complete and healthy because their blood condition is insufficient and imperfect; hence, as well as to inherited conditions, they are more affected by the, so to say, necessary diseases, and more inclined to manifest those constitutional states which accompany depraved organisations, and which are the starting-points of consumption in very many cases, if not of tubercle. Cell organisms ill-formed and of low vitality send as their product and detritus morbid matter prone to caseation to the lymphatics and blood; these contaminate the leucocytes of the lymphatics, or induce disease of a joint. The resultant morbid germs are arrested in the capillaries of the lungs, just as those of pyæmia, and thus the patient becomes phthisical by self-infection. In pyæmia we have a very widely significant example, for it certainly is in many instances contagious; witness its spread amongst contiguous surgical patients and in our lying-in wards. It seemingly often occurs, apparently without contagion, as the result of a simple accidental or surgical wound; and it also occurs, seemingly without contagion, on any break of surface. Though bacteria are found in the blood of pyæmic patients, the same are met with in that of those who are not so; there is grave doubt, therefore, of its bacterial origin; whilst the constant presence of inflammation products and of germs imbued with the characters of the local inflammation from which they pass, and the consequent constant formation of embolism and thrombosis, undoubtedly giving rise to the secondary deposits, seem to point unmistakably to its dependence on altered and diseased blood germs.

It is still a moot point with many whether cancer should be considered a constitutional disease, and as such more or less hereditary. For ourselves, we can see no difficulty in holding it to be so, bearing in mind the facts to which we have alluded in respect to syphilis. Why should not cancerous, strumous, and other tendencies be passed through the primordial germ of an individual as well as syphilis? All strumous children do not die of phthisis, and all syphilised patients do not suffer from tertiary symptoms. All the offspring of gouty parents do not manifest gouty conditions. Why expect all born of cancerous parents to have cancer? What first causes its development in any particular spot we cannot say, but it is certain that at first cancer seems to be simply a formation of embryonic tissue, like that seen in any inflammatory process. Soon, however, in differentiation, the specific characters of the growth appear. Shortly the nearest lymphatics are involved; and then, the cell organisms of these being altered, secondary deposits occur. We have often thought that the old experiments of HUNTER, the transplantation of cocks' combs, and the modern practice of skin-grafting, throw much light upon the germ theory. If epithelial organisms can be taken from one individual and be made to grow on and form part of another, retaining even their special characters; if the cells from the urethra imbued with the specific characters of gonorrhœa can produce gonorrhœal ophthalmia; if the syphilitic father can through the sperm elements transmit the disease to his offspring, and, as shown in the previously quoted experiments of TAPPEINER, the cell germs in the sputa of phthisical patients, when inhaled in the form of spray, induce this disease in dogs,—why should not cancer be similarly transmissible? That in some cases it is so, by apposition as in skin-grafting, is apparently shown in the frequent instances in which with cancer of the tongue we find patches of the same on the cheeks; and with epithelioma of the cervix uteri we notice the same on the contiguous vaginal surfaces that come into contact with it, for these appear so disconnected with the original disease that they cannot be regarded as secondary developments in the ordinary sense, and their occurrence is explicable only on the ground—for which good reason has been shown—of direct transplantation of diseased cells and germs. The whole question is as wide as its influence on medicine and pathology, as well as surgery, may prove to

be extensive; and we have thus, however incompletely, given our reflections upon it, that the subject may have that place in the current thought of the day which its importance seems to us to demand, and as suggestions for its application as occasions arise.

THE *London Gazette* of the 5th inst. gives in detail the new statutes for the University of Cambridge, drawn up by the Commissioners appointed under the Universities of Oxford and Cambridge Act, 1877, and which are to be submitted to Her Majesty, and if approved come into force on the first day of January, 1882. The general effect of the new statutes will be to strengthen and extend the professorial teaching at the University, as well as improve its financial condition. For this purpose the colleges are to be placed under contribution, each of the colleges having to pay to the University chest every year a fixed percentage on its income. This, in the aggregate for the first two years will amount to not less than £5000; in the three subsequent years, to not less than £10,000; and so on, till by the year 1896 the annual income of the University will be from this source not less than £30,000. In addition, the colleges have to provide professorial fellowships, some of which are assigned to particular professorships, as, for instance, the Regius Professor of Greek to Trinity College, the Dixie Professorship of Ecclesiastical History to Emmanuel College, and Professorships in Law and Medicine to Downing College. The other professorial fellowships not assigned to any particular fellowship are twenty-seven in number, of which Trinity College provides five, St. John's five, King's four, Caius two, and the other colleges, with the exception of Downing and Emmanuel, which have special professors assigned to them, one each. In addition to this large increase of the professorial power of the University, the endowments of existing university professorships are to be increased, and three new university professorships created—viz., Physiology, Pathology, and Mental Philosophy and Logic. The professorial chairs are handsomely endowed, the Regius Professor of Physic receiving £700 per annum, the Professor of Chemistry £850, Anatomy £600, Physiology £800, and Pathology £800. The occupants of the last two chairs, however, are debarred from private practice. Again, in connexion with the departments of study for which special boards of studies are instituted, a body of teachers called Readers are to be appointed, each of whom will receive an annual stipend of £400. A certain number of these Readers will be assigned to the Natural Science department and the chairs of Anatomy and Pathology. Their appointment, however, will no doubt depend to a considerable extent on the number of students attending in any given department. The University, moreover, is to have power to appoint lecturers on any subject not immediately connected with any special board of studies for such time and under such conditions as may from time to time seem desirable. The increased resources of the University will also provide for the erection of museums, laboratories, libraries, lecture-rooms, on a more comprehensive scale than they have been hitherto able to afford. Lastly, it is intended to devote some portion of the University revenues in grants of money for special work in the way of research, and for investigations conducted in any branch of learning or science connected with the studies of the University. The scheme is a noble and comprehensive one, and the benefit it will confer on our profession and on science will, we believe, be immense. An increasing number of students will be annually attracted to the University: those of promise to compete for scholarships and other rewards now so liberally thrown open to students of medicine; whilst the more ordinary student will be glad to avail himself of the practical training the University laboratories will afford, and which, if the scheme now introduced be carried thoroughly into effect by the appointment of efficient teachers—and Cambridge in this respect has been hitherto most fortunate,—will be exceptionally great, if not beyond the possibility of attainment elsewhere. Apart from the educational advantage, the gain in another direction will be considerable. One of the great drawbacks in the life of the medical student at our London hospitals is its almost complete isolation from other interests and objects; so that when the time comes for him to engage in the active duties of his professional career, he finds himself at a disadvantage, because he has had no opportunity of acquiring that knowledge of the world which contact and exchange of ideas with men engaged in other pursuits and studies can alone give. A few years spent at the University, as a prelude to the completion of his medical education in London, will be invaluable to him, by bringing him in contact with men training for other professions or occupations in life, and thus extending the range of his ideas and enlarging his sympathies, besides furnishing him with valuable friendships and an entrance into a wider social sphere than is usually possible for the metropolitan student.

Annotations.

"Ne quid nimis."

SIR WILLIAM JENNER, PRESIDENT OF THE ROYAL COLLEGE OF PHYSICIANS.

THE election of Sir William Jenner to the important office of President of the Royal College of Physicians will give great satisfaction to the profession at large. This distinguished physician has long been recognised by the general consent of his brethren as the head of the profession. Sir William is wrong in regarding the esteem felt for him as a tribute to the position in which "accidental circumstances" have combined to place him. He has been thrust "in the sunlight," but while the fierce light brings out the defects of an imperfect object, it has displayed the professional character of Sir William Jenner in a way to command the respect and regard of his keenest critics as well as his most ardent admirers. This selection for the Presidency of the College reflects honour on that institution, and may well be the harbinger of a new era, a renewal of which the old corporation stands greatly in need. The choice is the more significant seeing that it was made, almost unanimously, after a "personal explanation," in which—following the extraordinary statement made by Dr. Quain with respect to his co-operation with Dr. Kidd in the treatment of the Earl of Beaconsfield—Sir William Jenner announced that he too had been asked to meet Dr. Kidd, and he positively declined. "If then," continued Sir William, "Dr. Quain be right, it is I who deserve the censure of the College." The vote of the Fellows, which gave Sir William Jenner more than twelve times the support accorded to the candidate next below him on the poll, was the answer of the College to this appeal.

It is not Sir William Jenner who has done wrong in declining to meet a reputed homœopath in consultation, but Dr. Quain who has erred in consenting to act with Dr. Kidd! No notice of the question of ethics having been given, and a discussion being impossible, this was the only form in which judgment could be expressed. It is a judgment which will be endorsed by the profession as a whole; and the election of Sir William Jenner to the Presidency of the College is the more honourable, and has the greater significance, because it was accomplished at the conjuncture and in the manner described.

THE CASE OF THE EARL OF BEACONSFIELD.

THERE are features of medical interest in the case of the Earl of Beaconsfield to which it is worth while to allude; but first let us explain that there has been no foundation for the statement that Sir William Jenner met Dr. Kidd in consultation; on the contrary, Sir William expressly declined to do so. There was nothing personal in this refusal. The course taken was that to which every practitioner of scientific medicine must have felt himself impelled. No grounds exist for consultation between the ordinary physician and the professor of a particular school. Medicine is not a science which admits of sectarian views. If two mariners, one of whom believed the earth to be a flat disc, while the other held the commonly received hypothesis of its spheroidal form, were asked to act together in navigating the same ship on a voyage round the world, how could they co-operate? We do not *wilfully* refuse to meet homœopaths; we simply decline because it would be a grim farce and a practical imposition to do so. The result must be a failure of justice to the patient, which may jeopardise his prospect of recovery. The course which practitioners should pursue in an emergency of this kind is very clear. They are not acting rightly in causing the delay of possible relief. They are not called upon, nor is it expedient, to postpone action until they have consulted professional friends. We can scarcely conceive of a more undignified procedure than that which Dr. Quain confesses to have adopted when he delayed obeying the summons he received to the aid of the Earl of Beaconsfield until he had visited or communicated with the then President and several Fellows of the College of Physicians. The call of duty should be instantly obeyed; and the physician, being on the spot and ready and willing to render his services, should claim to see the patient *alone*, or throw on the friends the onus of declining to permit him to do so. This was not, unfortunately, the course pursued by Dr. Quain in the case of the Earl of Beaconsfield, but there will, we think, be no question in the mind of the profession that this is the course which ought to have been taken, and which alone could be defended or approved. What took place at the second visit of Sir William Jenner to Lord Beaconsfield may be stated as follows. In consequence of Lord Beaconsfield's weak state and general illness, it was impossible for those about him to explain any matter to him, and any agitation might have proved fatal. Lord Beaconsfield himself wished much to see Sir William Jenner, but he had remarked on Dr. Kidd's absence from the room when Sir William, having received the Queen's special commands to visit Lord Beaconsfield, saw him with Dr. Quain alone. And it was feared that if Dr. Kidd was *not present* at this second visit with Dr. Quain and Dr. Bruce, Lord Beaconsfield would be much disturbed. Under these circumstances Sir William Jenner, in the interest of the patient, consented to see the noble lord in Dr. Kidd's presence. After the examination, Sir William Jenner expressed his views to Dr. Quain, Dr. Kidd being still present, but in no sense of the word did Sir William Jenner consult with Dr. Kidd. In brief, Sir William Jenner did all that the condition of his patient required while avoiding any breach of professional etiquette.

As we pointed out at the commencement of this illness, the noble lord's strength has long been a matter of *mental* energy; it has therefore been especially necessary that he should be sustained by *mental* stimuli. His was not the case of a man suffering from worry, or what is erroneously called "overwork." At no period of his brilliant career has this great statesman suffered from disorderly work. His mind has been too well-balanced, and his method too consistently clear-headed to leave him exposed to the perils which beset less calmly earnest workers. To deprive such a man of his normal sources of energy was to enfeeble his very powers of life. We are in no way surprised to hear that the appearance of Lord Rowton at the bedside of the noble earl, and the personal influence of his nearest friend of many years past, acted as a restorative, and enabled Lord Beaconsfield to "rally." The only marvel is that this obvious method of reviving the failing strength was not more promptly applied. Lord Beaconsfield has had an attack of undeveloped gout with the characteristic bronchitis. The so-called "spasm" has been the result of the accumulation of viscid secretions in the bronchial tubes, the accumulation being indicated by the usual physiological consequences of a deprivation of oxygen, together with special nervous depression. Spasm of the muscular coats of the air-passages is common in gout, and in the case of Lord Beaconsfield the constitutional peculiarity has rendered the spasm worse. The unavoidable but most untoward absence of Lord Rowton during the early period of the illness exercised a depressing effect, and rendered the treatment more than ordinarily difficult. The medical question of the moment is whether proper means can be taken to relieve the bronchial tubes and so avert the spasm when it occurs; the noble lord can be supplied with suitable nourishment at very short intervals, so as to keep up his strength. For the rest, the issue is simply a question of vitality, and that, as we have insisted, it depends almost exclusively on the mental strength in reserve, and the mental treatment to which his lordship may be subjected.

URÆMIA.

THE inoffensiveness of urea when injected into the blood, a fact of much interest in connexion with current theories of certain symptoms in renal disease, asserted by many experimenters, has been confirmed by MM. Richet and Martin in some experiments described to the Académie des Sciences. Even fifty grammes, nearly an ounce and three-quarters, did not cause the immediate death of a dog of medium size. The investigators then endeavoured to ascertain the percentage of urea in the blood half an hour after the injection of a considerable quantity, and they conclude from the results which they obtained that not more than one-eighth part of the amount injected can then be found in the blood. It is remarkable that the same result was obtained even when both kidneys were ligatured. It must hence be assumed that the urea injected passes at once into the tissues and liquids of the organism, and, in accordance with this supposition, a notable elimination was found to occur by means of the stomach and intestine. The contents of the stomach yielded at the rate of fifteen grammes of urea per litre, and the saliva five grammes per litre. Doubtless a similar passage of urea occurs into the lymph, the muscles, and the parenchyma of the tissues. Urea injected into the blood is only very slowly eliminated by the kidneys. A very remarkable fact, and one most difficult to explain, is that although urea acts as a diuretic, causing a considerable total increase in the quantity of the urine, it lessens the percentage of urea contained in it. There

is an elimination of water out of all proportion to that of urea. Nevertheless, animals whose kidneys have been tied die far more quickly after an injection into the blood of a moderate quantity of urea (20 grammes) than if no such injection is made. They die in sixteen, eighteen, or twenty hours, whereas, after simple nephrotomy, they usually live for forty-eight hours. The injection into the blood of a small quantity of chloride of ammonium has the same effect. The injection of moderate doses of neutral salts of ammonia beneath the skin does not occasion any considerable toxic effects, far less than if they are injected into the blood. This fact makes it difficult to attribute the symptoms known as uræmic to the non-elimination of the salts of ammonia. The mucous membrane of the stomach of animals dying after the injection of urea into the blood is strongly ammoniacal. A small quantity of such mucous membrane, placed in contact with a solution of pure urea, causes it to decompose with great rapidity, just as if a soluble or organised ferment had been added, a very suggestive fact on which the authors promise a further communication.

THE MEDICAL REFORM QUESTION IN YORKSHIRE.

A MEETING held at Leeds on the 6th inst., to consider the subject of medical reform, was numerously attended, almost every large town in Yorkshire being represented by one or more members of the profession. The feeling of the meeting was clearly indicated by the marked expression of approval which followed Dr. Allbutt's trenchant remarks regarding the hopelessness of any real improvement in the existing system of medical education under the auspices of the General Medical Council as at present constituted. The sense of the meeting was also expressed with tolerable precision as to the necessity of reducing the number of members of Council, and that a large proportion of its members should be elected by the votes of the profession. It does not follow that the gentlemen thus elected should necessarily be general practitioners. It was felt that the profession at large could well be trusted to judge as to the men who were best calculated to advance the interests of medical education and the well-being of the profession, and that they would vote for candidates for the Council irrespective of any considerations as to which branch of the profession such candidate might belong. In placing the subject of the reconstruction of the Medical Council first on the list of the resolutions and in the hands of one of the most distinguished physicians in the North of England, the meeting at Leeds plainly indicated their opinion of the importance they attached to this measure, and their belief that a change in this direction is necessary before any reasonable hope can be entertained for the improvement of medical education in this country. The subject next in importance to the emancipation of the General Medical Council from the baneful influence that is exercised upon it by the corporations is the desirability of creating conjoint and complete examinations for each division of the kingdom. As Mr. Wheelhouse remarked, no legislation on this subject can be satisfactory which does not provide for such examinations. Mr. Wheelhouse reiterated the arguments we have frequently made use of, and the Leeds meeting unanimously supported him in his observations as to the desirability of reducing the number of the doors through which men are now able to enter the profession. There can be no question that it is absolutely to the disadvantage of the profession that students should be able to seek entrance into its ranks first at one door, and then, if they failed, at another, and so on till they gained their end. A few only of these nineteen bodies give anything that can be called a complete examination. At the present moment a man by passing in Anatomy and Surgery alone can place his name upon the Register, and claim to be a practitioner. Mr. Wheelhouse remarked some people imagine that some joint boards of examiners, such as he had referred to, would be the means of reducing all our students to one dead level, and tend rather to lower than increase the average standard of their professional attainments; he believed these premisses were unfounded, and that the majority of our students would not be contented with the minimum standard, or pass examinations, but would strive to obtain the diplomas and fellowships of our various colleges. We sincerely hope, with Dr. N. de Bartolome, that the meeting at Leeds will be followed by similar gatherings of the profession in other large towns, so that the action commenced at Leeds may proceed until the profession have impressed upon the Government the fact that by far the majority of medical practitioners in this country not only know what they want, and the nature of the measures they refer to when they talk about medical reform, but that they are earnest in the matter, and determined to attain their end in spite of every obstacle. The result of the Leeds meeting was summed up in a petition to Parliament, which has been already numerously signed by the medical practitioners of Yorkshire. The most gratifying feature about this meeting in Leeds is the evidence it affords that medical reform is a question, above all things, of a more efficient Medical Council and more complete and fewer examining bodies.

CINCHONA CULTIVATION IN JAMAICA.

WE lately referred to the promising extension of the cinchona cultivation in the island of Jamaica, and some further details of interest are contained in the "Annual Report of the Public Gardens and Plantations in Jamaica," for the year ending the 30th September, 1880, by Mr. D. Morris, M.A., F.G.S., Director. The work has been retarded by severe hurricanes and storms which have inflicted great damage on plantations, but, nevertheless, the progress has been very satisfactory. About 50,000 cinchona plants have been set out in their permanent places, of which 43,000 were C. officinalis, 6000 were C. calisaya, and 1000 C. succirubra. No new land has been opened up, these plants having been used in planting the remainder of the land cleared and partly planted in preceding years. A striking proof of the suitability of the soil for the cultivation of the tree is afforded by the fact that in two plantations the original planting has been completely masked by the abundant growth of self-sown seedlings, some of which are now large enough to be cropped, and there is the promise of a succession of valuable crops for several years. Root bark from these seedling trees has realised 10*s.* per pound, and trunk bark 8*s.* per pound. Moreover, these self-sown seedlings were to the number of 100,000 transplanted to nurseries, where about 350,000 others were raised from seed. Several new species of cinchona have been introduced, especially a valuable variety of Columbian bark and the true Calisaya bark; it having been found that the plant cultivated in the island as such was really a hybrid, partaking more or less of the red bark character, and, although a valuable form, is less so than the true yellow bark. Several cuttings have also been introduced from Kew of the precious Ledgeriana variety and are thriving. This variety has been called by Mr. Howard "The Prince of Cinchonas." Quite recently bark of this form has been sold in the London market at 14*s.* 8*d.* per pound, and that from trees grown in Java has been sold in Amsterdam at 17*s.* per pound. The aggregate amount of bark shipped to England during the year was 27,299 pounds, which sold for £5330, and was yielded by 8248 trees. The evidence afforded by the rapid growth of self-sown seedlings that the climate of the Blue Mountains is specially suitable for the

growth of cinchona is corroborated by another very interesting fact mentioned in the report. Twelve years ago a few seedlings were planted for experiment on one or two estates, and most of the plants were removed when the regular nurseries were opened. Hearing last year that a few cinchonas had been left at one of these experimental plantations at an elevation of 4800 feet, Mr. Morris determined to visit the spot and ascertain their condition. Nothing had been done to the land since 1868, and the road thither was almost impenetrable. The trees were found to occupy an area of 120 square yards, and to be no less than 379 in number, and some were only nine inches apart. Most were of the Crown bark (C. officinalis), and about twenty feet high, with clean tall stems, the largest measuring fifteen inches in circumference at the base. The condition of the trees showed clearly that when a cinchona plantation has been established and the trees completely cover the ground, say in the third year from planting, no further attention is necessary till they arrive at maturity. Mr. Morris examines the question of whether the extensive cultivation of cinchona is likely to render it an unremunerative object of industry, by lowering the price of quinine, but he concludes, with much show of reason that the death-roll among all the nations of the world from fevers, for which it is the sole remedy, is so vast that there is no prospect of the price of quinine being seriously diminished. On the contrary, the prices of good quinine-yielding barks have been rising. At any rate, the cultivation in Jamaica would seem to have nothing to fear, for it is estimated that the yield per acre from the crown barks, in suitable localities and properly planted, would not be less than £1980, while if Ledgerian bark is grown it would be £2000. It is evident that the quinine might fall considerably in price, and yet its cultivation under such conditions might yield a handsome profit.

APPOINTMENT OF A HOMŒOPATH AS MEDICAL OFFICER OF HEALTH AT HASTINGS AND ST. LEONARDS.

SURPRISES, like misfortunes, seldom come singly. Before we have been able to realise the fact that a London physician is in daily consultation with a reputed homœopath the news reaches us that a member of that persuasion has just been elected as Medical Officer of Health at one of our chief watering places and health resorts. The facts of the case are briefly as follows. Through the retirement of Mr. Ashenden a vacancy was recently created in the post of Medical Officer of Health for the Hastings Urban Sanitary District, and in response to an advertisement nine candidates came forward, some of whom, from their high qualifications and professional standing, were entitled to receive every mark of consideration and respect from the members of the Town Council. Nevertheless, at the monthly meeting of that body, without even appearing to consider the claims of the more eligible candidates, they at once proceeded to elect Mr. Knox Shaw, the youngest of the applicants, and who has recently commenced practice as a homœopath at St. Leonards. It is alleged that the municipal body have been actuated in the matter by political motives. If that be so, we are at a loss to conceive how a body of gentlemen, elected to watch over the interests of a flourishing town, can have subordinated those interests to any collateral considerations. That the welfare of Hastings and St. Leonards may be materially affected by this injudicious proceeding we have no doubt. In order that the functions of a medical officer of health shall be efficiently performed, it is of the utmost importance that this gentleman should possess the entire confidence of his professional brethren, and feel assured of their support in the discharge of his delicate and responsible duties. As matters at present stand at Hastings and St. Leonards it is impossible that the medical officer should receive confidence and support, for members of the profession cannot place themselves in unreserved communication with one whose views differ so materially from their own on every subject connected with medical practice. The sanitary condition of the town is, therefore, likely to suffer materially, and we need hardly say how any suspicion of that kind must be calculated to injure the prestige of the place with visitors and invalids. One of the first questions asked nowadays by patients, or even by persons merely seeking change of air, of their medical attendants, relates to the sanitary condition of the place they intend to visit. What information can medical men at a distance obtain with regard to those two towns when they are of necessity debarred by professional considerations from holding communication with the present sanitary officer? The medical men of the district have already discharged their duty by issuing a dignified protest. The fame of "Hastings and St. Leonards" as an invalid resort has been in part due to the high professional reputation of its medical men, and there can be no doubt that the two towns are greatly indebted to the members of our profession generally for much of their substantial prosperity.

IT will be gratifying to his numerous English friends to learn that the health of Dr. J. Marion Sims has to a considerable extent been re-established. Dr. Sims has received a cordial welcome from his medical brethren at Charlestown, who propose to give him a public reception.

THE Honorary Fellowship of the Royal College of Surgeons in Ireland was last Wednesday, the 13th inst., conferred on Professor Helmholtz, of Berlin; and the Honorary Degree of LL.D. by the University of Dublin.

WE learn that the prize of £50 for the best essay "On the Treatment of the Opium Habit" has been awarded by the adjudicators, Sir Risdon Bennett, Sir J. Fayrer, and Dr. Sieveking, to Dr. George Shearer of Liverpool.

AT an inquest held at Battersea on Tuesday on the body of a woman who died from exhaustion during parturition, a verdict of "manslaughter" was returned against the unqualified assistant at a dispensary, who was called to the case.

WE regret to learn that Dr. Frederick Hulke, the well known and esteemed practitioner in Deal, died suddenly on Sunday last.

WE may remind our readers that there will be a meeting of the Pathological Society on Tuesday next, the 19th.

THE Brighton Town Council has decided to erect a sanatorium at a cost of £15,000.

AMBULANCE PRACTICE BY VOLUNTEERS. — A number of the officers, non-commissioned officers, and gunners of the 7th (Manchester) Lancashire Artillery Volunteers have during the past two months attended a course of practice prescribed by the St. John Ambulance Association, the instructor being Dr. Tomkins, honorary surgeon of the corps. On April 4th, Surgeon-Major Hutton, of the Rifle Brigade, conducted an examination of the men in ambulance practice at the Artillery Barracks, Hyde-road. They acquitted themselves in an efficient manner.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORT OF MEDICAL INSPECTOR OF THE LOCAL GOVERNMENT BOARD.

Enteric Fever at Newlyn, East (Dr. BALLARD).—Newlyn (East) is a decayed mining village in the rural sanitary district of St. Columb, Cornwall. It contains about 150 houses, nearly all of the cottage class, and about 650 inhabitants. Much of the village is in a grievously dilapidated condition, some of the occupied houses unfit for habitation, and indications of gross sanitary negligence are apparent everywhere, even to overcrowding of the dead in the churchyard. Several times this village has been scourged by enteric fever, and in October last another outbreak began, which in the course of the next three months attacked 67 families, giving rise to 116 cases, and killing 14 or 15. The attention of the Local Government Board was called to this formidable outbreak by a notice of it in the London daily press, no information of it having been given to them by the medical officer of health, as in duty bound, he having been forbidden to do so by the Rural Sanitary Authority. Dr. Ballard was directed to make inquiry by the Local Government Board into the accuracy of the reports which appeared in the public press, and having ascertained this, if requisite, to investigate the circumstances of the outbreak of disease and give such help to the sanitary authority in dealing with it as might prove to be necessary. The origin of the largely diffused outbreak was readily traced to the excremental pollution of two of the principal sources of water-supply of the village—the one a well with which a common sewer communicated, and with which the sewer must have been in free communication shortly before the outbreak, the other a spring outside the village, and situated in a hollow. The surroundings of this spring were found to be such as "to inspire simple disgust, since the surface of the field and the ditch close to the spring were defiled with human excrement deposited there by the women and children when they came to fetch water. They probably had no privy at home." The general insanitary state of the village, particularly as to excremental nuisances, contributed to keep up and extend the outbreak when the disease had once declared itself.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Burgh of Hillhead (*Glasgow*).—Dr. James Christie reports for 1880 a birth-rate of 24·00 and a death-rate of 9·43 per 1000 among a population numbering 7000. The average mortality of the burgh of Hillhead during the last three years, it appears, was only 11·0 per 1000 living, "a death-rate much lower than that of the insular rural districts of Scotland, which invariably show the lowest death-rate in the country." This remarkably low death-rate, according to Dr. Christie, "depends to a large extent on careful modes of living, and on the fact that the houses are commodious and not overcrowded, and that all cases of illness, as a rule, receive early attention," but, he adds, "it must be conceded that it is, in some measure at least, due to healthiness of site, proximity to the open country, and to attention on the part of the Local Authority to matters affecting the public health of the district."

Dublin: February, 1881.—Dr. Cameron reports for this month a death-rate of 44·25 per 1000 inhabitants, the rate on the northern side of the city being 46·45, and on the southern side 42·52. The deaths from zymotic diseases were considerably under the average for the month of February during the last ten years. On the high mortality of the month he observes that it "cannot be ascribed to the prevalence of zymotic disease, for the proportion of deaths from this class of maladies to the total deaths is much below the average of former Februarys, and of very many towns. A very high proportion of the mortality was due to diseases of the respiratory organs, especially of bronchitis and pneumonia. The want of proper food, of warm clothing, and of comfortable dwellings, are prime factors in causing diseases of the breathing organs. For some time past these factors, the result of poverty, have done their deadly work amongst the humbler classes of Dublin. The workhouses are crowded, there are large numbers of persons out of employment, and the unusual severity of the winter has sown the seeds of many such diseases as chronic bronchitis, phthisis, and rheumatism."

Dorchester (*Urban*).—Mr. E. J. Day reports for this urban district for 1880 a birth-rate of 32·4 per 1000 inhabitants, and a death-rate of 18·8, the population being estimated at 7435. A good deal of sanitary work, according to Mr. Day's report, appears to have been done during the year, and a scheme for the drainage of the town is occupying the attention of the sanitary authority.

Dorchester, Rural (*Eastern Division*).—Mr. E. J. Day's report for 1880 for this division shows a birth-rate of 24·8 per 1000 inhabitants, and a death-rate of 17·2, the population being estimated at 5332. Here also more or less detailed sanitary work has been done, but we notice among the items of work mentioned the doubtful proceeding of the construction of a cesspool of circular shape, thirty feet in depth and six feet in diameter, "*adjoining* the south wall of the workhouse." The italics are ours.

Dorchester, Rural (*Maiden Newton*).—Mr. Wm. Rendall, the medical officer of health for this division of the rural sanitary district, reports for 1880 a birth-rate of 23·74 per 1000 inhabitants, and a death-rate of 18·47, among a population estimated at 6640. He has the following observations on farmyard and pig nuisances:—"Complaints have frequently been made to me of the nuisance arising from farmyards, dairy-yards, and pigstyes situated in the centre of villages close to dwellings and public roads. This is undoubtedly the case, and as long as these yards are so situated animals must be kept there and the nuisance will arise; of all animals pigs seem to be the most objectionable, and generally give rise to the complaints made. Again, I believe these yards are often the means of polluting wells for some distance round; several cases have come under my notice where well water is discoloured and unfit to drink after a storm, and I have invariably found these wells situated near a yard. The yards are usually hollowed out and filled with manure, and after a storm of rain are overflowing with liquid manure, which gradually percolates the soil and pollutes the springs which run in that direction. The consequence is that all wells supplied by these springs are polluted." It is worthy of note that at Maiden Newton privies, with few exceptions, have been converted into earth-closets, and are satisfactorily managed by the inhabitants themselves.

THE OKEHAMPTON WORKHOUSE.

A report has been presented to the Okehampton Rural Sanitary Authority on the sanitary condition of the workhouse of the Union, by Mr. Linnington Ash, their medical officer of health. The report is an excellent illustration of the advantages to be derived from the employment of medical officers of health in the sanitary inspection of these buildings. The workhouse is not a very old one, but it was built at a time before that clear knowledge of the sanitary requirements of buildings of this class, which we now possess, was obtained, and, in consequence, it has very numerous defects in its arrangements for ventilation, sewerage, water supply, dormitories, sick accommodation, offices, and general convenience, which it is not desirable should remain for one moment longer than necessary for removal after their discovery. How many of these defects have remained so long unremedied, or rather, we should say, undiscovered, is one of those mysteries of official poor-law inspection we do not pretend to explain, but which shows that the ordinary inspection of the Local Government Board in sanitary matters needs as much as ever to be supplemented by inspection such as this of which Mr. Linnington Ash has given us a specimen. Mr. Ash describes the general plan of the Okehampton workhouse as good, and lending itself readily to such changes in internal arrangements as is to be desired, although the site is not well chosen.

SANITARY HOSPITAL ACCOMMODATION.

It is an old saying that "we may take a horse to the water, but we cannot compel him to drink"; and it would appear from our contemporary, the *Local Government Chronicle*, that we may induce a sanitary authority to build a hospital, and give the gratification to the ratepayers of paying the cost of it, but the sanitary authority is not bound to keep it open for the reception of patients.

The *Local Government Chronicle* reports a curious case of river pollution from Salford. A bargee engaged in the removal of town refuse from the Corporation manure wharf on the canal for carriage into the country, hit upon the ingenious idea of saving his time and labour by depositing his cargo, consisting of no less than twenty-three tons of filth of one sort and another, in the river with which the canal communicates!

Dr. Tatham, the medical officer of health for the borough of Salford, has recently been delivering in that borough a popular lecture on the "Nature and Prevention of Infection."

The City of London Union and the Kensington Guardians appear to have protested against the further expenditure of money by the Metropolitan Asylums Board in legal proceedings regarding the Hampstead Hospital.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

English urban mortality showed a further slight increase last week upon that which had prevailed in recent weeks. In twenty of the largest English towns, estimated to contain in the middle of this year nearly a third of the entire population of England and Wales, 5277 births and 3264 deaths were registered last week. The births exceeded by 91, and the deaths by 7, the average weekly numbers during 1880. The deaths showed a further increase of 68 upon the low numbers returned in recent weeks. The annual rate of mortality in the twenty towns, which had been equal to 20·6, 21·7, and 21·9 in the three preceding weeks, further rose to 22·4 last week. The lowest rates in these towns were 16·0 in Portsmouth, 17·9 in Leicester, 18·7 in Brighton, and 19·0 in Bristol. The rates in the other towns ranged upwards to 26·1 in Manchester, 26·2 in Oldham, 27·8 in Wolverhampton, and 28·0 in Liverpool. During the thirteen weeks ending the 2nd inst., the death-rate in the twenty towns averaged only 23·9 per 1000, against 25·7, the average rate in the corresponding periods of the five years 1876–80.

The deaths referred to the principal zymotic diseases in the twenty towns, which had been 321 and 315 in the two preceding weeks, rose to 339 last week; these included 78 from measles, 73 from small-pox, 71 from whooping-cough, 45 from scarlet fever, and only 26 from fever, principally enteric. The annual death-rate from these principal zymotic diseases averaged 2·3 per 1000 in the twenty towns, and ranged from 0·0 and 0·4 in Brighton and Leicester, to 3·4 both in Portsmouth and Wolverhampton. Whooping-cough showed the largest proportional fatality in Portsmouth and Leeds, and scarlet fever in Wolverhampton. The 16 deaths referred to diphtheria in the twenty towns included 11 in London and 2 in Portsmouth. The highest death-rates from fever, mainly enteric, were recorded in Newcastle-upon-Tyne and Portsmouth. Small-pox caused 77 more deaths in London and its outer ring of suburban districts, and one in Liverpool, but not one in any of the eighteen other provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 820 and 899 at the end of each of the two preceding weeks, further rose to 921 on Saturday last, exceeding the number under treatment at these hospitals at any time since May, 1877. The number of new cases of small-pox admitted to these hospitals during last week was 224, against 147 and 256 in the two preceding weeks.

The deaths referred to diseases of the respiratory organs in London, which had been 348 and 358 in the two preceding weeks, were 359 last week, and no less than 91 below the corrected average number in the corresponding week of the last ten years; they included 221 from bronchitis and 94 from pneumonia. The annual death-rate from lung diseases, exclusive of phthisis, was equal to 5·0 per 1000 in London last week; the rate from the same diseases was no less than 9·0 in Liverpool, but did not exceed 4·3 in Salford.

The causes of 90, or 2·8 per cent., of the deaths in the twenty towns last week were not certified, either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths was equal to 2·4 per cent. in London, and averaged 3·1 per cent. in the nineteen provincial towns. No uncertified deaths were recorded last week in Brighton, Portsmouth, Norwich, Bristol, or Leicester; while the proportions of such deaths were largest in Salford, Hull, Leeds, and Sheffield.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a quarter persons, the annual death-rate last week was equal to 23·5 per 1000, against 23·5 and 20·7 in the two preceding weeks; this rate exceeded by 1·1 the average rate in the twenty large English towns. The rates in the eight Scotch towns ranged from 17·6 and 19·1 in Dundee and Leith, to 27·3 and 33·9 in Perth and Paisley. The deaths referred to the principal zymotic diseases in the eight towns, which had been 97, 75, and 69 in the three preceding weeks, rose again to 82 last week; they included 26 from whooping-cough, 20 from diarrhœa, 11 from fever, 12 from diphtheria, 7 from measles, 6 from scarlet fever, and not one from small-pox. The annual death-rate from these zymotic diseases averaged 3·2 per 1000 in the eight towns, which was 0·9 above the mean rate from the same diseases in the twenty English towns. This zymotic death-rate in the eight Scotch towns ranged from 1·3 and 1·7 in Greenock and Leith, to 3·9 and 4·4 in Perth and Aberdeen. The fatal cases of whooping-cough, which had been 31, 27, and 16 in the three preceding weeks, rose again last week to 26, of which 13 occurred in Glasgow, 6 in Edinburgh, and 3 in Aberdeen. The 20 deaths from diarrhœa showed a further increase upon recent weekly numbers, and exceeded the average number for the season; they included 7 in Glasgow, 4 in Dundee, and 3 in Aberdeen. The 12 deaths referred to diphtheria corresponded with the number in the previous week; 8 were returned in Glasgow and 2 in Paisley. The 11 deaths referred to "fever" showed an increase, and included 7 in Glasgow and 2 in Edinburgh; the death-rate from this cause in the eight towns was twice as high as the average rate in the twenty English towns during the week. Four of the deaths from measles occurred in Glasgow, and the other 3 in Aberdeen; the 6 from scarlet fever included 4 in Edinburgh and 2 in Glasgow. The deaths referred to acute diseases of the lungs in the eight towns, which had been 138 and 146 in the two preceding weeks, further rose to 163 last week, and were equal to an annual rate of 6·5 per 1000, while the rate from the same diseases in London did not exceed 4·2; these diseases were especially fatal in Glasgow.

HEALTH OF DUBLIN.

The excessive rate of mortality in Dublin showed no decline last week. The annual death-rate in the city, which had been equal to 34·9 and 30·8 per 1000 in the two previous weeks, was again 30·8 last week. During the thirteen weeks ending on the 2nd instant, the death-rate in the city averaged no less than 37·8, against 23·4 in London and 22·3 in Edinburgh. The 197 deaths in Dublin last week corresponded with the number in the previous week, and included 14, or rather more than 7 per cent., which were referred to the principal zymotic diseases, against 19 and 15 in the two previous weeks. The 14 deaths from zymotic diseases included 8 from fever (typhus, enteric or typhoid, and simple continued), 4 from diarrhœa, 1 from scarlet fever, 1 from whooping-cough, and not one either from small-pox, measles, or diphtheria. The annual death-rate from these zymotic diseases did not exceed 2·2 per 1000 in Dublin last week; it was 3·0 in London and 3·1 in Edinburgh. The deaths referred to fever in Dublin, which had been 12 and 7 in the two previous weeks, were 8 last week; and the annual death-rate from this cause was seven times as high in Dublin as the average rate in the twenty English towns. The fatal cases of diarrhœa exceeded the number returned in recent weeks; while the deaths referred to other zymotic diseases were exceptionally few. The deaths of infants showed an increase upon those returned in the previous week; while those of elderly persons were fewer than in either of the two preceding weeks.

VITAL STATISTICS OF THE PUNJAB.

We are in the receipt of weekly returns of vital statistics for the Punjab Province of India, bearing the signature of Surgeon-Major Bellew, Sanitary Commissioner, which reflect great credit upon the local sanitary administration. These returns appear to be uniformly furnished for the entire province, which was reported to have had a population at the last census in 1875 of about seventeen and a half millions of persons. During the two weeks ending 5th and 12th Feb.

last the annual death-rate among this population was equal to 27·6 and 28·8 per 1000 respectively. It appears that only three deaths from cholera occurred in the province during the fortnight, and that the fatal cases of small-pox in the two weeks were 184 and 193 respectively. The most remarkable feature of the return is the fatality from fever; of 18,994 reported deaths in the province during the fortnight, no less than 12,566, or more than 65 per cent., were attributed to fevers. If these deaths from fevers be deducted from the deaths from all causes the annual death-rate from other causes in the fortnight would not exceed 9·5 per 1000, affording strong presumptive evidence that the term "fevers" must have a somewhat indefinite and wholesale signification in the returns. These weekly returns include detailed vital statistics for each of fifty-two large municipal towns, having an aggregate population of about a million and a quarter persons, among whom the average birth-rate in the fortnight was 39·0, and the death-rate 31·5 per 1000. Bearing in mind that in the capitals of the three presidencies registration of births has hitherto been a comparative failure, it is somewhat surprising to find in the returns before us apparently trustworthy returns of births in the fifty-two principal towns of the Punjab. Taking the two returns before us as indicative of the sanitary condition of these Punjab towns, we find, as might be expected, very excessive mortality in many of them. The largest town in the list is Amritsar, with a population of 136,166, which had a death-rate of 37; in Delhi, having a population of 115,992, the rate was 40. The third largest town in the list is Peshawur, the population of which is given as 58,430; the mean mortality of this town in the fortnight was 48, fever fatality showing a terribly high proportion of the total mortality. Assuming that the birth returns are approximately trustworthy, we may venture to suggest to the Sanitary Commissioner that an additional column to his excellent return, showing the deaths under one year of age, would afford valuable information on a most important and interesting subject—infant mortality in India.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

SANITATION AT CANNES.

The town of Cannes is about to contract a loan for £120,000, of which a third is to be employed to pay off the local floating debt. The rest will be devoted to public works, and we must commend the appropriation of this money as being dictated by sound sense. Fortunately the present administration of Cannes has at last realised that the preservation of public health is the first duty of a health resort. Hence it has been resolved to construct, and this at a cost of about £14,000, proper sewers in no less than nineteen streets. The present abominable sewers will be replaced by new egg-shaped conduits. If these latter are properly ventilated, an end will be put to the bad odours for which the streets of Cannes are too notorious. There are also four rivulets which at times assume the proportions of mountain torrents, and are invariably more or less contaminated by the refuse of neighbouring houses. To prevent the formation of stagnant pools and the decomposition of organic matter on the banks during dry weather, the bed of these rivulets will be converted with cement and masonry into a smooth channel, down the centre of which the smallest volume of water will pass on easily to the sea. The greatest work, however, will be the destruction of the most unwholesome district of the town called the Poussiat. Eighty-five houses must be pulled down, and a market and two broad streets built on the site. The cost of compensating the various proprietors in this and other districts, where narrow unhealthy streets are to be widened, is estimated at £40,000. In all, out of some £80,000 to be spent, only about £2000 will be employed for embellishments totally unconnected with the improvement of public health, and £3000 for the building of a school. This is a great and favourable contrast to, for instance, the town of Hyères, where a loan was contracted last year for £60,000, and only £880 devoted to the repairing of water conduits and canals. The example given by the town of Cannes is therefore all the more worthy of notice. At present, Monaco, Monte Carlo, and even the intervening low-lying quarter of the Condamine, is the only well drained district of the Riviera. Though the house drainage in the Principality is still very imperfect, the streets, at least, are marvellously well kept, even in the poorest localities, and are completely free from the noxious effluvium which is the bane of these southern winter stations. The Republican administration of Cannes have now determined, however, to keep pace with the monarchical government of Monaco, though their financial resources are not so large and their executive powers are strictly limited.

BERI-BERI.

Two important recent additions have been made to the literature of beri-beri; the first from the pen of Dr. T. Irvine Russell, Principal Civil Medical Officer of the Straits Settlements, in the form of a report on the prevalence of the disease in the criminal prison, Singapore; the second by Dr. Duane B. Simmons, Director of the Government Hospital, and President of the Foreign Health Board, Yokohama, in an elaborate paper published in the Medical Reports issued by the Chinese Customs (Special Series, No. 2). Dr. Irvine Russell's report gives a very careful and instructive account of *beri-beri* as it has been observed in the criminal prison of Singapore from May, 1875. From that date to the end of May, 1880, 1174 cases (of which 165 died) had been observed in the prison under circumstances very favourable for observing the disease. According to Dr. Russell, damp and malaria are the chief conditions provocative of *beri-beri*, malaria being essential. Dr. Simmons' paper is illustrated by a map and several instructive outline illustrations of patients in different phases of the disease. He regards *beri-beri* as arising from "a specific miasm or ground exhalation." Our contemporary the *Indian Medical Gazette* in its last received number gives, in a note from Dr. W. Carey, a curious extract from an account of life in Bombay two or three centuries ago, or thereabouts, in which the phrase *berri-berri* appears. "After drinking toddy rapidly," reads one sentence, "they took a disease called *barbieri* or *berri-berri*, in which a man tottered in his gait like a dying sheep, or span round like a teetotum." Dr. Carey asks, "Has the disease mentioned any connexion with *beri-beri* which excited discussion lately?"

An action (Hicks *v.* Doubledee) has been recently tried before Vice-Chancellor Hall to set aside an agreement to take a lease of a house in Sussex, which had been advertised in our pages in September last as suitable for a sanatorium or convalescent hospital. Tempted by this advertisement, the plaintiff, a medical men, entered into communication with the defendant, which ended in his signing an agreement to take the house on lease. After he had entered upon the occupation of the premises, the plaintiff found—contrary to what he had been led to believe, as he asserts, by the defendant—that the chimneys smoked intolerably, the water-supply was impure, and the drainage arrangements very defective; and he sought to free himself from the agreement. The case occupied nearly a fortnight in the trial, and the evidence tendered was of the most contradictory character. In the end the Vice-Chancellor decided that the plaintiff had entirely failed to make out his case, and dismissed the action, with costs, giving judgment in favour of the defendant.

The growing custom of members of Parliament asking questions in the House of Commons on general medico-sanitary matters deserves notice. It is evidently found much more convenient to ask a minister than to take the trouble of referring to a work in the library. But is it well that ministers should yield so readily to this habit, wasting the time of the House, and encouraging the laziness of certain of its members? Is a member of Parliament by virtue of his position released from the necessity of acquiring knowledge as other people have to acquire it?

The owners of several houses in the vicinity of Stanhope-street, Euston-road, were summoned at Marylebone Police Court for allowing their premises to lapse into an unhealthy condition. The insanitary state of the dwellings having been testified to by Mr. Shirley Murphy, the district medical officer of health, each of the defendants was ordered to complete the necessary work within seven days and to pay the costs of the summons.

Messrs. H. K. Lewis have issued a new edition (the tenth thousand) of Dr. Edward T. Wilson's most handy and useful card "Disinfectants, and How to Use Them."

THE SERVICES.

INSPECTION OF THE ARMY HOSPITAL CORPS.

The class of medical officers and men of the Army Hospital Corps who have just completed a course of training in "stretcher and ambulance drill" at Aldershot, was inspected on Monday last by Surgeon-General A. Shelton, Head of the Medical Branch War Office, in the unavoidable absence of Sir William Muir, K.C.B., Director-General. The class, which consisted of twenty-two medical officers and a large number of men, was drawn up on the parade ground in Z Lines, South Camp, under the command of Surgeon-Major Sandford Moore, and after an inspection of the ranks and a march past was put through stretcher drill by the Instructor, Surgeon Henry Bradford. Not the least interesting part of the day's proceedings was the presentation of the Zulu War Medal to twenty-four men of the Army Hospital Corps who had served in the late campaign, and to whom the Surgeon-General expressed his pleasure and gratification at conferring on them the decoration granted by Her Majesty for their services. After the inspection the Surgeon-General and his staff were entertained at luncheon by Surgeon-General Fasson and the officers of the Army Medical Department in their mess-hut in the South Camp.

THE ARMY HOSPITAL NATIVE CORPS FOR INDIA.

The Indian Government has sanctioned the formation of a Native Army Hospital Corps for service with British troops in that country. The head-quarters are established at the office of the Surgeon-General of Her Majesty's Forces, who is charged with the command of the corps and its general administration. All men joining the corps will be duly enlisted, attested as "hospital attendants," and will be subject to military discipline. Men belonging to the present existing hospital establishments will be eligible for enrolment, provided their age and character qualify them for admission; recruits will be enlisted as required. The corps will consist of the following classes—viz., ward servants, cooks, water-carriers or bheesties and sweepers. The total strength of the corps for the present is to consist of 1872. The scale of pay and pensions has not yet been promulgated, but it is understood it will be sufficiently liberal to attract a good class of servants, a want hitherto much felt in hospital administration in India.

THE BEARER COMPANY IN SOUTH AFRICA.

The Bearer Company of the Army Hospital Corps, under the command of Surgeon-Major William Johnston, arrived at Fort Napier, Natal, on the 28th of February from Durban, and, after some difficulty in getting its transport and equipment, proceeded to the front on the 5th March. The ambulances, waggons, stretchers, litters, cacolèts, &c., were brought out from England with the Company, the transport consisting of 20 horses, 64 mules, and 120 oxen being obtained in the colony. The *Natal Witness* states that the conduct of the men since their arrival in Pietermaritzburgh has been excellent. Surgeon Connolly acts as adjutant of the Company.

The following medical officers, who have completed a tour of foreign service in India, will return to England during the present trooping season: Surgeon-Majors S. B. Roe, G. C. Gibbon, T. H. White, O. Owen, and G. J. Gibson. Surgeon-Major Roe accompanied the 92nd Highlanders to Natal for the Transvaal expedition from India.

Surgeon-Major E. Hopkins, Surgeons W. R. G. Hinds and W. Donovan, Army Medical Department, have embarked with the 85th Regiment from India for service in the Transvaal.

Surgeons J. G. Clery and J. Stevenson accompanied the 102nd Madras Fusiliers from Ceylon to Natal.

ARMY MEDICAL DEPARTMENT.—Surgeon-Major John Wales has been granted retired pay, with the honorary rank of Brigade Surgeon; Surgeon-Major Francis Patrick Staples, from half-pay, to be Surgeon-Major; Surgeon-Major Charles Frederick Richards, M.B., has retired upon temporary half-pay.

INDIAN MEDICAL SERVICE.—The following appointments as Surgeons have been approved by Her Majesty:—Bengal: George Michael James Giles, Arthur Robert Wyatt Sedgefield, Edwin Francis Horatio Dobson, Johnston Shearer, Syed Hassan, Robert James Polden, Hem Chandra Banerji, Sambhu Chandra Nandi, Alfred Henry Pierson, Francis Samuel Peck, William Deane, and Philip de Conceiçao.—Madras: John Lawrence Vangeyzel, Hastings Norman Victor Harington, Gerard Macklin Eccles McKee, Kavasji Cursetji Sanjana, Hormasji Merwanji Hakim, John Adolphus Burton, Francis Joseph Doyle, Manekshaw Jamshedji Keláwálá, Philip Henry William Boon, Mervanji Pestanji Kharegat.—Bombay: Alexander Frederick Ferguson, Kavasji Hormasji Mistri, George Ernest Fooks, Joseph William Townsend Anderson.

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of 1st April, 1881, the undermentioned Fleet Surgeons have been placed on the Retired List from the 1st inst., with permission to assume the rank and title of Deputy Inspector-General on the Retired List:—William Ross (b), M.D., James Lilburne, M.D., John Ruddall-Holman, M.D., William Patrick, Henry Loney, Robert Irvine, William Forrest MacClinton, B.A., M.B., Samuel Clift, John Chamberlayne Ingles, William Telfer, Marmaduke Philip Smyth Ward, Francis Yeates Toms, William James Hamilton, M.D.—The following appointments have been made:—Staff Surgeon William Redmond and Surgeon Joseph Crowley, M.D., to the *Repulse*.

ROYAL COLLEGE OF PHYSICIANS.

PERSONAL EXPLANATION BY DR. QUAIN; ELECTION OF PRESIDENT.

THE meeting of the Fellows of the College of Physicians on Monday last (the 11th inst.) was most numerously attended, nearly all the metropolitan Fellows being present, including Sir Thomas Watson, Sir James Alderson, and Sir George Burrows, who have in past times held the office of President. The occasion was a memorable one, the chief business being the election of a President for the ensuing year. Before this and the other business of the meeting took place, however, Dr. Bucknill, one of the censors of the College, rose, and begged to ask Dr. Quain to give an explanation of the reasons which influenced him in entering into consultation with a homœopathic practitioner.

The PRESIDENT (Sir Risdon Bennett) allowed the question to be put; but as it was a matter purely personal to Dr. Quain he ruled that no discussion could take place on it, as no formal notice had been given of the question.

Sir G. BURROWS asked whether such a question could be put until the business before the Comitia had been dealt with.

The PRESIDENT ruled that it might now be put.

Dr. QUAIN then rose and said that he was grateful for the opportunity afforded him of giving a personal explanation. He looked upon homœopathy as a creation of the imagination, which had no relations with scientific medicine. In the course of his long life he had never sought notoriety or publicity; and he felt sure that the Fellows, when they heard his explanation, would see that no other course was open to him. On the 29th of March Lord Barrington called on him and said that he had come to ask him to visit Lord Beaconsfield, that it was the wish of the Queen that further advice should be sought, and that Lord Beaconsfield had particularly requested to see him (Dr. Quain). He felt flattered by the request, but told Lord Barrington that he could not meet Dr. Kidd, who was a homœopathic practitioner. Lord Barrington said that he was not aware that Lord Beaconsfield was being treated homœopathically, and urged his request in strong terms. Dr. Quain, in reply, said that he must seek further advice, and did so. He went to a former President of the College, who told him that if the medical man were a qualified practitioner and were not treating the case homœopathically, Dr. Quain could not refuse to meet him. Acting upon this advice Dr. Quain next called upon Dr. Kidd, who told him and (at Dr. Quain's request) gave him a written statement to the effect that he practised medicine regularly, that he sometimes treated his patients homœopathically, but that he did not treat Lord Beaconsfield so. Dr. Quain then called on the President

of the College and told him all the circumstances, and received the reply that he would not be justified in refusing the summons. The next day he saw Sir T. Watson and Sir James Paget, who both spoke in the same sense. He went to Lord Beaconsfield, and found that he was being treated actively, that Lord Beaconsfield had the utmost confidence in Dr. Kidd, so much so that the consequences to his lordship might have been serious were Dr. Kidd to withdraw from the case, and, under all these circumstances, Dr. Quain asked what other course could he have pursued? He had acted from the best motives.

Sir W. JENNER rose to make a statement, as he was personally involved in the matter.

The PRESIDENT said that no discussion could take place without formal notice of motion being given.

Sir W. JENNER said that he was not going to speak of Dr. Quain but only of himself. He, too, had been asked to meet Dr. Kidd, and had positively declined. "If, then," Sir William added, "Dr. Quain be right, it is I who deserve the censure of the College."

The ordinary business, which had been delayed by this episode, was then proceeded with. A communication from the General Medical Council relative to a preliminary scientific examination was read, and referred to the Council of the College for consideration.

On the motion of the PRESIDENT a grant of fifty guineas was made towards the expenses of the International Medical Congress.

The PRESIDENT then delivered the customary annual address. He said that during the past year eighteen members and seventy-eight licentiates had been admitted; that twelve new Fellows had been elected, the total number of Fellows being 304. Twelve Fellows had been removed by death. He referred to the manner in which the College had furthered the International Congress by devoting to the Executive the use of its rooms; and spoke of the alterations in the regulations for the Licence Examinations, which had already borne good fruit. The opposition of the College to the Vaccination Acts Amendment Bill had led to its withdrawal. The late Dr. Sparks had bequeathed his library to the College; pictures had been presented by Mr. Richmond, R.A., and Dr. Munro; and a legacy of £1000 had been bequeathed by Mrs. Bradshaw to the College (and also to the College of Surgeons) for the purpose of founding a lectureship in memory of her husband, Dr. Bradshaw, the lecture to be delivered on August 18th in each year, the day of Dr. Bradshaw's decease. In conclusion, Sir Risdon Bennett expressed his deep sense of the kindness and generous support he had received from the Fellows during his term of office. He had no fear for the future of the College, which was representative of British medicine, and he urged that the way to maintain its reputation was by circumspection in the elections into the Fellowship.

On the motion of Sir W. JENNER a cordial vote of thanks was passed to the President for his address with the request that it should be printed and sent to the journals.

The election of President was then taken by ballot. The result was that out of 108 Fellows present there voted—for Sir W. Jenner, 87; Sir R. Bennett, 7; Sir W. Gull, 5; Dr. Wilks, 2; Dr. Pitman, 2; Dr. Acland, 1; Dr. Quain, 1; Dr. Radcliffe, 1. Two papers were blank.

Sir W. Jenner, having obtained the votes of more than two-thirds of those present, was declared duly elected.

Sir THOMAS WATSON, as the Senior Fellow present, read the customary declaration, and handed the insignia of office to the new President, who then took the affirmation.

Sir W. JENNER, in thanking the Fellows for his election, said that the office of President of that College was the highest honour that could be conferred on any English physician. Its honour rested on that of the College, its dignity, the high scientific character and social status of its Fellows through all time. It had been enhanced by those who had filled the chair. The names of Watson, Alderson, Burrows, and Bennett were second to none in the profession; and they had discharged their duties with the greatest possible dignity. For himself, he felt unworthy of that post. Accidental circumstances, in the shaping of which he had no control, had placed him in the sunlight, and thus it had been that a large number of the Fellows had looked towards him; but he knew for that very reason that if he did anything which could be thought in the least way unworthy, he would not have been elected President. He felt, therefore, greatly honoured, for he knew they would not have selected him unless they felt confidence in him. He assured them he would keep to the solemn declaration he had taken, and added the satisfaction with which he had seen all the ex-Presidents present that day, and hoped that he had their support.

PHARMACOLOGY AND THERAPEUTICS.

THE INFLUENCE OF TEMPERATURE ON ABSORPTION.

M. SASSESKY has published in the *St. Petersburg Medical Wochenschrift* the results of some observations on the influence of temperature on the absorption of drugs. These were introduced by the mouth, the rectum, or by hypodermic injection, in the case of persons in good health, and of others suffering from various diseases. Iodide of potassium, salicylic acid, ferrocyanide of potassium, and hydrochlorate of quinine were given in solution, by the mouth and rectum, care being taken that each viscus was previously empty. The period after administration at which the drug could be detected in the urine was taken as the indication of the rapidity of absorption. For hypodermic injection solutions of iodide of potassium and of ferrocyanide of potassium were employed. It was uniformly found that, when given by the mouth or rectum, the higher the temperature of the solution the more rapidly was it eliminated, the difference varying from two to forty minutes, the results being somewhat influenced by the individual condition of the patients as well as by the differences in the temperature of the solution. In administration by hypodermic injection the results were less conclusive. In ten cases the warm solutions were absorbed the more quickly; in four, temperature made no difference in the rapidity of absorption, and in one case a cold solution of ferrocyanide of potassium was absorbed more quickly than a warm solution. Manassein has suggested that warm liquids produce a more intense hyperæmia of the mucous membrane, and hence are absorbed more quickly. It is possible also that cold liquids cause a more prolonged initial contraction of the vessels which will have the effect of delaying absorption.

RESORCIN.

Resorcin is a diatomic phenol extracted from certain plants, as assafœtida, and produced synthetically by the action of potash on chloro-phenyl sulphuric acid, to which we have before called attention (THE LANCET, 1880, vol. ii., p. 777). M. Dujardin-Beaumetz has lately corroborated its value as an antiseptic, and represents it as very serviceable in surgery. It causes poisonous symptoms in doses of more than six grammes. According to Andeer, sublimed resorcin has much less toxic properties. He asserts that it has not merely an antiseptic, but also a slightly caustic action upon mucous membranes, and does not give rise to a slough, the epithelium being regenerated in two or three days. He has employed it with advantage for the purpose of washing out the stomach in gastric catarrh and dilatation. It seems to possess certain hæmostatic actions, chiefly efficacious in capillary hæmorrhages. Soltmann has employed it in ninety-one cases of infantile "cholera," of which seventy-four were cured, and asserts that, putting aside three cases in which death occurred from grave complications, the use of the drug reduced the mortality from this disease in his practice from 34 to 15 per cent. It quickly arrests vomiting, even in small doses, and restrains the diarrhœa, without tending to cause the collapse or the toxic symptoms which result from the use of even small doses of carbolic acid. It is readily taken by children. The stomach and intestine rapidly regain their functional energy. He gave it to children under a year in a dose of ·1 to ·3 gramme in sixty grammes of infusion of chamomile.

THE ANTIPYRETIC ACTION OF IODINE.

Many observers have asserted that preparations of iodine possess the power of lowering the temperature in acute febrile diseases. A solution of iodine and iodide of potassium was recommended, for instance, by Hillebrand for this purpose in typhoid fever; and Coesfeld, in 1879, pointed out the antipyretic action of iodoform applied to the skin in febrile states. Binz, in a recent communication to the *Archiv für Exp. Pathologie und Pharmakologie*, attributes this effect to the liberation of free iodine in the system, and has demonstrated that iodic acid possesses the influence in a

very high degree. In the artificial septic fever of rabbits he found the temperature could be reduced in an hour from 104° to 101½° by an injection beneath the skin of a grain and a half of iodate of soda dissolved in two cubic centimetres of water. Unfortunately the poisonous properties of iodic acid are an obstacle to its therapeutic use, and, when combined with an alkali, it cannot be given by the mouth, because free iodic acid is liberated in the stomach. Given hypodermically it is, however, effective, and seems to cause little local disturbance.

THE ANÆSTHETIC ACTION OF CHLORINE.

Ten years ago Cameron published a singular case of a sailor who died comatose after having slept in a cabin containing a quantity of chloride of lime. In the post-mortem it was noticed that a strong odour of chlorine was exhaled from the ventricles of the brain when they were opened, although the autopsy was only made thirty hours after death. Binz has recently observed a similar effect in the case of rabbits, and his researches show that chlorine, bromine, and iodine, when inhaled, paralyse the nerve centres, apparently by a direct action on the protoplasm of the nerve cells, and cause death by cessation of the respiration, not of the heart. It used to be taught that chlorine when inhaled is quickly transformed into chloride of sodium by combining with the alkali of the blood. It seems, however, that, as Cameron's case teaches, the chlorine may remain for a long time in contact with the lymph and blood without undergoing this transformation.

POISONING BY TANSY.

A case of fatal poisoning by this common English plant has occurred in America, and has been recorded in the *Pittsburg Medical Journal*. An infusion of about half an ounce of the dry herb was taken by a woman at bedtime. In a few hours the patient vomited and was purged, and then ceased, to recur in the afternoon with abdominal pain in the epigastric region, which became very severe; the breathing was rapid and shallow, and the pulse became very feeble. The patient died twenty-six hours after taking the tansy. Dr. Gallaher, who describes this case, also records another of poisoning, not from the infusion, but from the oil of tansy. It was taken in order to bring on menstruation, and, small doses having been ineffective, half a teaspoonful was taken at bedtime. Two hours later the patient was awakened by burning pain at the stomach and ringing in the ears; she became cold and pulseless; after an emetic, however, she rapidly recovered. In neither case was there any convulsion, coma, or paralysis.

DIALYSED IRON.

According to a writer in "New Remedies" the so-called dialysed iron of the United States is not prepared by dialysis, but is obtained by mixing a small proportion of hydrochloric acid with washed ferric hydrate precipitated by ammonia, and setting the mixture away for about three weeks, when the clear solution is decanted from a slight residue, and is then ready for use. The preparation is thus identical with that long in use in this country under the name of ferric oxychloride or chloroxide. The knowledge of the method by which it is prepared—that the American "dialysed iron" is not dialysed—is said to be kept so sedulously secret by the manufacturing fraternity that a practical chemist of some experience was laughed at for his simplicity when he proposed to make dialysed iron by dialysis. It is said that if the factories were restricted to dialysis for the product they could not possibly supply the demand—without, we suppose, increased labour, which would be more troublesome and expensive.

NITRITE OF SODA.

According to Binz and Barth the physiological action of the nitrites in general, and of nitrite of soda in particular, bears considerable resemblance to that of arsenic. Their high "reductibility" renders them powerful oxidising agents, and it is asserted that they are first reduced in the tissues of the greatest physiological activity, in the gastro-intestinal mucous membrane, and in the nerve tissues, and next in the blood, where the oxygen seems to be absorbed by the red corpuscles, which assume a chocolate-brown colour, and become functionally powerless in consequence of the formation of methæmoglobin. This elective action of the nitrites explains, according to Binz, their caustic action on the intestine when they are applied to the skin, and also their paralytic effect on the nerve centres.

COCO-NUT AS A REMEDY FOR TAPEWORM.

In the Antilles the coco-nut is a popular native remedy for tapeworm, and its utility has been proved by Dr. Martiali, chief of the medical service at Senegal. A nut of the coco (Coco crucifera) weighs about five ounces, and the whole of this is taken, scraped, and three hours afterwards a dose of castor oil is administered. The worm comes away five or six hours after the dose of coco-nut. In nine cases in which it was given the remedy was successful.

PILOCARPIN IN FETID PERSPIRATION.

M. Armaingaud of Bordeaux, in a communication to the Académie de Médecine, asserts that repeated hypodermic injections of pilocarpin will cure the troublesome fetid perspiration of the feet without producing any injurious effect on the system. Prolonged observations on three patients have convinced him that the effect is permanent, and not temporary. The pilocarpin appears to act by producing a "derivative hypersecretion" in the salivary glands; and the general sudorific action, which can be obtained much more surely with jaborandi than with pilocarpin, cannot be advantageously substituted for the sialologue action of the latter.

EUGENOL.

The antiseptic properties of oil of cloves and oil of peppermint have long been known, since they have often been employed to prevent starch, &c., from becoming mouldy. They have also been employed as remedies for toothache. Eugenol, which is extracted from these oils, and which is also known as eugenic or caryophyllic acid, is found to have similar powerful antiseptic properties. It has a formula $C_{10}H_{12}O_2$.

THE COLLEGE OF SURGEONS.

AT a quarterly meeting of the Council, held on Wednesday last, the report of the Erasmus Wilson Committee, recommending the award of sixty guineas to Mr. Butlin for his two lectures on the Relations of Sarcoma to Carcinoma, and the award of thirty guineas to Mr. Frederick Treves for his lecture on the Pathology of Scrofulous Affections of Lymphatic Glands, was adopted.

The third report of the Committee on the necessary arrangements for the institution of additional examinations for the diplomas of Member and Fellow, was likewise adopted. (See also THE LANCET January 15th, 1881.)

It was resolved to appoint a "Nomination Committee," consisting of seven members of the Council, to nominate candidates for the several examinerships of the College, excepting candidates for the Court of Examiners, and for the Court of Examiners' section of the Dental Board.

The Jacksonian Prize was awarded to W. Watson Cheyne, F.R.C.S., for an essay on the History, Principles, Practice, and Results of Antiseptic Surgery.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Commons, on Thursday, the 7th instant, petitions for inquiry into the Indian Army Medical Department were presented from W. Morgan, D. M. Jack, and D. N. Martin. A copy was ordered, on the motion of Mr. Ashley, of further correspondence relating to hospitals for British seamen in foreign ports. Notice of amendments in Committee on the Metropolitan Open Spaces Bill was given by Mr. W. H. James, and on the Alkali Works Regulation Bill a large number of amendments was put down by Earl Percy.

Indian Quinine.

On Friday, Captain Price asked the Secretary of State for India whether it was the fact that the Indian Goverment were exporting large quantities of cinchona bark for sale in London; and whether, in introducing the cinchona plant into India, the Government did so with the object of encouraging private enterprise, or of competing in the market

with the private trade. The Marquis of Hartington said the object of the Government in introducing cinchona into India was to provide an abundant supply of a cheap febrifuge in the country. Almost all the bark produced in the Bengal plantations was manufactured in India for use there, but difficulty had been found in treating the produce of the Madras plantations in the same way as that of the Bengal plantations. For this reason the greater part of it was sent to England, and it was believed that the sale of this bark had established a reputation for the Indian growths to the great advantage of private growers; but an experiment was now being made on a large scale with a view to its manufacture in England on Government account, and if that experiment were successful it was probable the sale would be discontinued.

Small-pox Statistics.

Mr. Paleston asked the President of the Local Government Board whether he could give any statistics showing the extent of the present small-pox epidemic; whether this disease was more prevalent than in former years; and if it was, whether he would cause such temporary hospitals to be erected for small-pox patients as were put up during the epidemic of 1877. Mr. Dodson replied that at so short a notice he could not give precise statistics on the extent of the epidemic, but up to the present time it had not been fatal in any appreciable degree except in the metropolis. It was unfortunately more prevalent in the metropolis than on an average of years. As compared with recent epidemics, it was believed that the present would about rank with 1877–78, or 1866–67; but it was not anything like as fatal as that of 1871–72. The Board had recommended the local authorities to provide temporary accommodation as far as practicable, and that had already been done, or was in progress in some instances.

Correspondence.

"Audi alteram partem."

"MISSED LABOUR."

To the Editor of THE LANCET.

SIR,—I venture to ask your indulgence for a few words in reference to the editorial comment in your last issue upon my case of so-called "missed labour." You cite "the ingenious theory of" my friend "Dr. Roper, that cases of missed labour are cases in which rupture of the uterus had taken place, and the child had escaped through the rent into the surrounding tissues or abdominal cavity. In the case observed by Dr. Barnes, he seems to have convinced himself that the fœtus was in the cavity of the uterus by the introduction of the hand into that cavity.....The theory of Dr. Roper is not incompatible with Dr. Barnes' observations, and the question cannot be settled but by careful post-mortem investigation."

I do not think it judicious to exclude Dr. Roper's hypothesis as explaining some cases; but as applied to my case I submit that it is rather far-fetched; it is an example of that fallacy in logic which seeks to substitute for a simple and natural explanation one that is extraordinary and improbable. I cannot accept this explanation even from Dr. Roper, to whose clinical sagacity I am indebted for much knowledge.

To argue that the question can only be settled by post-mortem examination is really to beg the question. In such cases as may be explained by Dr. Roper's theory death is a probable issue, and the opportunity of dissection may arise; but uterine pregnancy generally terminates in recovery, and happily dissection cannot be appealed to. I submit that my patient recovered because the gestation was uterine.

Deeply as the case interested me, and difficult as the pathological problem it presented seemed to be, I confess I was not anxious to solve it by a post-mortem examination. The solution given by repeated and varied examinations during life and the issue in recovery satisfies alike my ambition as a physician and my curiosity as a pathologist.

I am, Sir, yours &c.,

Harley-street, April, 1881. ROBERT BARNES.

CYSTICERCUS IN THE BRAIN.

To the Editor of THE LANCET.

SIR,—In THE LANCET of Saturday last Dr. Flint, of Scarborough, published an interesting case of cysticercus cellulosæ in the ventricle of the brain occurring in a boy aged seventeen; giving rise to no marked symptoms during life, but apparently causing almost sudden death with acute and peculiar cerebral symptoms. As Dr. Flint seems to consider his case almost as unique as it is interesting, it seems to me worth while to refer to two others, notes of which were published with drawings of the specimens in the Transactions of the Bristol Medico-Chirurgical Society, 1878.

The first occurred in my own practice, and was published by me in 1859. The patient was a woman, aged twenty-nine. Otherwise healthy, strong, and active. For eighteen months she suffered from gastric irritation with vomesis and headache, with great febrile excitement when the attacks—seldom absent more than a few days—came on. Various forms of treatment had been tried by Dr. Mortimer Granville, under whose care she was, but without much benefit, change of air and chalybeates alone seeming to procure any abatement in the symptoms. Subsequently she became my patient in the infirmary. She could not bear to lift her head from the pillow on account of a dead, dull, heavy pain and sense of weight, nor move it because of excessive pain and stiffness in her neck. Subsequently she stated she could not open her eyes, and had all the appearance of being very hysterical; and, being strongly impressed with the idea that she was dying, returned home. Five days afterwards, while supposed to be sleeping, she was found to be dead. A cyst about an inch in diameter was found lodged in the fourth ventricle, the roof of which was much softened. The cyst contained a white semi-opaque mass, a quarter of an inch in length, and what appeared like a twisted tube protruding from it, containing fluid. On removing the end of this tube it was seen to contain the head and neck of a tænia about a quarter of an inch in length. The head has four suckers, and the corona of hooklets characteristic of tænia, and the neck, which is clearly and distinctly segmented, ends in a sort of bulb.

The second case occurred in the practice of Dr. Shingleton Smith at the Infirmary, the patient being a girl sixteen years of age. She had complained for a month, but only gave up work as a servant a week before admission. The first symptom noticed was headache frequently recurring; her look was healthy, but she seemed listless and apathetic. She became subject to attacks of severe pain across the forehead lasting only a few minutes, with flushing; then copious perspiration and a short sleep; vomiting frequently followed an attack. After six weeks the attacks were followed by drowsiness; pulse 40 to 50; then an attack of convulsions affected the right side, and the vomesis was frequent. In a second attack of convulsions she died. A cyst was found in the lateral ventricle, loosely attached to the choroid plexus. It consisted of an abdominal sac three-quarters of an inch in diameter, with an elongated projection half an inch in length; a thin layer of membrane enveloped the whole length of the head and neck, and obscured the suckers and hooklets. A dark spot, however, could be seen at the distal end of the narrowed part of the object, which, with a pocket lens, resolved itself into a dark central mass, with four smaller ones arranged around it.

My object being simply to afford your readers an opportunity of comparing these two cases with that published by Dr. Flint, I refrain from alluding to the several points of interest such comparison seems to afford.—Yours, &c.,

F. BRITTAN, M.D.,

Clifton, April, 1881. Consulting Physician, Bristol Royal Infirmary.

"THE CONSULTATIONS OF DRS. QUAIN AND KIDD."

To the Editor of THE LANCET.

SIR,—In your issue of the 9th inst. I noticed some remarks elicited by the consultation between Dr. Quain and myself upon the illness of Lord Beaconsfield, in which you question the professional morality of the proceeding and challenge a justification of our conduct. Speaking for myself, may I tender the following reply?

1. Although, to quote your own words, "a reputed homœo-

path," I desire once for all to disclaim any such special party designation. Four years ago I resigned all connexion with the Homœopathic Hospital and Society. In a very extensive practice during thirty-four years I have always adopted that course of treatment which my own experience has taught me to be most effective for the cure of my patients. Herein I claim simply to have acted as any man does who is not bound by the trammels of a merely mechanical routine. Like other practitioners, I use the drugs of the British Pharmacopœia, but in many cases I have learned from experience that what are called homœopathic remedies may be usefully prescribed. Such remedies I freely use in suitable cases and according to my own judgment. I do not prescribe infinitesimal doses, nor according to the caprice of my patients.

2. With regard to the co-operation of Dr. Quain with myself, the facts are as follows:—A valuable life was at stake, one precious to her most gracious Majesty the Queen, and to many millions of her subjects. I had been enabled for nearly four years to afford prompt and effectual relief to that illustrious man in many severe illnesses. From the first moment of the present attack I recognised its gravity and danger. For ten nights and days I bore the strain of incessant attention, then her Majesty wished that the responsibility of so momentous an illness should be shared in consultation. I was asked to arrange it. Knowing the satisfaction it would give her Majesty to have Sir W. Jenner's co-operation and opinion, I at once wrote to him. Without inquiring as to the manner in which I was treating the patient, Sir W. Jenner declined to meet me, on the ground that (quoting his own words)—"holding as you and I do different views as to practical treatment, I do not think Lord Beaconsfield's interest could in any way be served by our meeting in consultation; on the contrary, it could not be without risk to him." Before receiving his answer, however, Lord Beaconsfield expressly desired to see Dr. Quain. He communicated with me as to how I was treating the case, and upon receiving my assurance that it was not homœopathically, he without hesitation visited the patient, and so fulfilled the spirit (to use your own words) of that boast of the medical profession that in the hour of sickness it recognises only humanity in need of succour. In this way Dr. Quain and I did not work together without being agreed, nor did either sacrifice his convictions to effect the co-operation. On the contrary, Dr. Quain's great skill was thus made useful to our illustrious patient, and my intimate knowledge of his constitution and of the disease was as helpful to Dr. Quain.

3. As to the rules of professional etiquette which you maintain have herein been violated, it is impossible within the limits of this letter to discuss the entire question, but of this at least I am convinced, that if that "boast of the medical profession"—which you so fully endorse—is henceforth to remain a living principle of conduct, we must be guided not by the misleading flicker of prejudice and jealousy, but rather by the clear and convincing light of humanity and common sense.

Believe me, yours faithfully,

J. KIDD, M.D.

George-street, Hanover-square, April 12th, 1881.

*** Then there must be strange errors in the published reports of the Homœopathic Hospital. The report for 1879–80 lies before us, and in it we find Dr. Kidd's name as a "Benefactor," in addition to which he is credited with a donation for 1879, and another for 1880. Until recently the name "Joseph Kidd, M.D., M.R.C.S.," appeared *first* in the List of the "Medical Council" of the Hospital. Again, in the "British Homœopathic Medical Directory, 1881," under the head "List of Qualified Physicians and Surgeons practising Homœopathy," &c., we find Dr. Kidd's name and address with the hours at which he may be consulted at his professional residences. His name also appears under the head "Homœopathic Practitioners," in the "Plain Directions for the Treatment of Common Complaints," and Homœopathic Medical Directory, issued by Messrs. Leath and Ross, Homœopathic Chemists. Those facts need explanation. We cannot discuss the question of ethics—we cannot call it etiquette—with Dr. Kidd. We differ on fundamental principles; and to these principles as set forth in our article of last week we adhere.—ED. L.

ABERDEEN.

(*From our own Correspondent.*)

ON April 1st an outbreak of a disease presenting many features of novelty occurred in Aberdeen, breaking out nearly simultaneously in several families, and attacking a considerable number of individuals in each. Cases occurred in rapid succession in all parts of the town, until by the 8th of April about fifty families and over a hundred and fifty individuals had been affected. At first it was somewhat puzzling to account for the outbreak; but after a day or two it became apparent that it was connected with the milk supply, and the further observation of the disease confirmed this impression, for the families affected were scattered widely over the town, and had only one thing in common—viz., that they all obtained their milk from one large dairy farm in the neighbourhood of the town. Inquiry has shown that about one-half of the families obtaining milk from this source have been infected, while no similar cases (as far as is yet known) have occurred elsewhere in the town.

The symptoms in most cases have begun suddenly with a sharp onset of fever—chilliness followed by hot dry skin and high temperature,—the thermometer frequently marking 103° and 104°, and sometimes even nearly 105°. Headache and pain in the back, particularly the former, have very uniformly been present, and sometimes the headache has been very severe and persistent. In one or two cases delirium has been present. Along with the headache there has usually been more or less sickness, and very often vomiting, after which the stomach has remained inactive, food being refused, and this condition remaining till the disease has passed away. The tongue at first coated with a white fur, not usually very thick, and in cases where the symptoms were prolonged, and especially where much weakness was present, it became dry and brownish. The pulse rose at once at the commencement of the attack, and ranged usually about 100, but in weakly patients it rose to 120, and even somewhat higher. Sore-throat has uniformly been present to a greater or less extent. This has begun with a feeling of stiffness and soreness about the angle of the jaw, and a difficulty in swallowing or a feeling as if something were in the throat. The fauces have been more or less reddened, sometimes but slightly, at other times brightly injected, but without any appearance of exudation, and generally with little, often no swelling, the redness extending over the uvula, the lower margin of the soft palate, the tonsils and pillars of the throat, and occasionally the back of the pharynx. Externally there has been marked swelling behind and below the angle of the jaw, sometimes on one side only, sometimes on both, and not unfrequently appearing on one side, and after that subsided, appearing on the other. In a few cases a herpetic eruption has shown itself about the lips and inside of the mouth. In one or two cases there was a slight attack of diarrhœa, but it appeared to be merely a casual complication. In one case the lymphatic glands at the lower part of the neck were enlarged, and in another the right inguinal glands were enlarged. The period of greatest severity of the attack has been the first twenty-four or forty-eight hours, after which the symptoms gradually subsided. Relapses, however, have been frequent, especially when the swelling, after subsiding on one side of the throat has shown itself on the other; but usually the second attack has been less severe than the first. Whether any sequelæ may occur remains to be seen; but a considerable number of the cases seem now to be convalescent, having lasted from three or four to five or six days. Where the system was previously weak the disease seems to have been most prolonged; or perhaps it might be more correct to say that the subsidence of the attack has left more or less debility and prostration, from which when the patient was weak, and especially when he was elderly, there has been considerable difficulty in obtaining restoration. One fatal case has occurred, and it is not improbable that others may have to be recorded.

A careful examination is being made into the cause of the outbreak, and until that is completed it would be premature to offer any decided opinion on the subject. In the meantime, however, it may be stated that the cows (forty-six in number) at the dairy farm whence all the families attacked receive milk, seem in excellent health; that no addition to the dairy stock has been made since November; that the byres are

large and airy, in every way unexceptionable in structure, and that everything about the dairy-house is clean and well kept. In one point, however, there is a serious defect. The water used is obtained from the Dee, being part of the water supply for the town of Aberdeen, which is extremely pure; and chemical examination has shown that it reaches the farm entirely uncontaminated. The supply pipe is led into a large cistern made of concrete, from which it is distributed to the byre, stable, dairy, &c. This cistern is placed within the byre, supported on beams in one corner, and placed at such a height as not to be in the way of the cows or their feeding-troughs. No doubt it is covered with a wooden cover, but this is very far from fitting air-tight; and as the byre is open from end to end, the air loaded with exhalations from the animals, from their food, their bedding, &c., finds free access to the water in the tank. Chemical examination has shown that the water in the cistern is seriously contaminated with albuminoid ammonia, nitrates, and excess of chlorides; and this, as direct sewage contamination is impossible, has evidently been derived from the air in the byre. Whether this has been the cause of the outbreak remains to be seen, but it is plain that an arrangement which subjects the water to such contamination is in every way most objectionable.

IRELAND.

(From our own Correspondent.)

THE Cork medical libel case, which was tried last week at Cork before Mr. Justice Barry and a special jury, terminated by the jury disagreeing.

During the past year the total number of patients treated at the Hospital for Women and Children, Cork, was 123 in excess of the number under treatment in 1879. The Board of Management, in their annual report, regret that the inadequate size of the present hospital building and want of funds prevent them from developing the usefulness of the institution. They also regret that the hospital has not received that support from the general public during the past year that was expected; on the contrary, the gross receipts of 1880 have fallen below those of 1879 by the sum of £107 19*s.* 8*d.*

An adjourned meeting of the Dublin Ladies' Sanitary Association took place last week, for the purpose of receiving a report from the Provisional Committee recently appointed, and to take measures for the permanent establishment of the association. It is proposed to carry out the objects of the association by the distribution of pamphlets, the delivery of lectures on health, sanitary improvements, and domestic economy, the establishment of a lending library of books, the formation of classes for adult girls, instruction in schools on hygienic and domestic matters, and the encouragement of neatness and cleanliness in the rooms and houses of the poor.

The plan of organisation of the Royal University of Ireland as adopted by the Senate differs but slightly—at least as regards the medical portion of the curriculum—from that proposed by the committee appointed for that purpose, and published in THE LANCET at page 504. Although as there stated, candidates for the M.D. may present themselves at the examinations for this degree at the end of two academical years from the date of obtaining the degree of M.B., yet to this arrangement must be added a regulation, that those candidates who shall be students in medicine in the Queen's University at the date of its dissolution shall be entitled, if they so desire, to obtain the degree of M.D. instead of the degree of M.B. upon passing the degree examination. There will also be an examination for a diploma in sanitary science, which will be conferred only on graduates in medicine of the University. The fee for the examination will be £2, and the examination will embrace the following subjects:—climate, chemistry, geology, physics, vital statistics, hygiene, and sanitary law.

At a recent meeting of the Committee of Management of the Cork-street Fever Hospital the registrar reported that during last month both fever and small-pox had decreased to a considerable extent, the number in the house that week being under forty, and none of the cases were of a severe type. The Committee are anxious, while the numbers are so low, to clear out the present convalescent house, which is unsuitable in many ways, and remodel the same according to modern requirements, but the necessary expenditure deters them for the present. There was only one case of small-pox under treatment in the principal Dublin hospitals for the week ending the 2nd inst.

The Corporation of Dublin do not appear to regard with satisfaction the recent conjoint report of the Colleges of Physicians and Surgeons on the death-rate of the city, most probably due to the belief that the Colleges consider that the sanitary authority have not been sufficiently active in utilising the powers they are entrusted with. At a recent meeting of the Town Council the conjoint report was recived and the following resolution in reference thereto was adopted:—"That in acknowledging the reports of the united colleges of the King and Queen's Colleges of Physicians and the Royal College of Surgeons on the death-rate of Dublin, the Corporation wish to thank the Colleges for their report, and to point out that the report contains no new matter or suggestions on matters of public health to which the notice of the Corporation had not been previouly directed by the report of the Public Health Committee, dated August, 1880, and that all of the said suggestions, so far as the executive powers of the Corporation extend, have been acted on for many months previous to the issue of the reports of the Colleges, except that of the main drainage, which, in the opinion of the Royal Commissioners, should follow the more urgent and possible reforms, and that the said report be forwarded to the Public Health Committee for further report thereon as to extended legislation to improve public health, and as to such reforms as will in great measure depend on the extension of municipal boundaries."

Obituary.

SURGEON-MAJOR G. F. FORBES.

DR. FORBES, whose death was announced in our obituary list of March 26th, belonged to the Forbeses of Millburn, near Inverness, and was brother of the late Dr. William Welsh Forbes. The greater part of his life was spent in India, and about fifteen years ago he was employed by Government as a Commissioner in connexion with the growth of cotton both in India and America. He passed through the troubles connected with the Indian Mutiny, and also saw service in the first Afghan War. Shortly after the completion of the Government engagement, he retired from active service. The deceased (says the *Aberdeen Herald*) lately endowed a medical dispensary, founded in Inverness by his brother, with a sum of £6000, which was lately handed over to trustees on behalf of that institution, and it is understood that his native county will benefit further by his benefactions. The provost, magistrates, and members of the Town Council attended the funeral, and the shops and places of business of Inverness were closed in token of respect for the deceased. The Forbes Memorial fountain, which he had presented to the town, was draped in black.

ADELAIDE HOSPITAL, DUBLIN.—During the past year 875 patients were admitted into the hospital, and the average number of beds in daily occupation throughout 1880 was 78. The special attention of the Committee has for some time past been devoted to providing a nursing staff sufficient for the proper care of the patients both by day and night; and the subdivision of the wards for the proper classification of disease has rendered it necessary to employ a larger number of nurses than in similar institutions. The sum expended in the maintenance of the hospital for the year amounted to £5258; while £1588 was received by subscriptions, £1598 by donations, £919 by bequests, and £867 from pay patients. A debt of nearly £3000 still remains, but this sum will be much reduced when some large bequests have been received.

NEWCASTLE INFIRMARY.—At the annual Court of Governors of this institution, held on the 7th inst., reference was made to the great pressure experienced on the accommodation afforded by the building, so that its enlargement would soon become an absolute necessity. On the representation of the infirmary authorities, it was stated that the Schools and Charities Committee have set apart suitable premises, and taken other measures, for founding a Hospital for Incurables in Newcastle.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Board of Examiners on the 7th, 8th, 11th, and 12th inst.:—

David L. Williams, Percy W. McD. Howse, Frederick H. Taylor, William A. Nutt, Walter Blaxland, Alfred T. Schofield, John Bostock, David Thomas, and Victor N. Bindley, London Hospital; Vere L. Oliver, George D. Hunter, Alfred T. I. Lilly, and Herbert W. Allingham, St. George's Hospital; Sydney S. Merrifield, Gerald G. Hodgson, A. H. Gordon, Herbert C. McDonall, Alfred M. Vann, Cecil D. Greenwood, and Thomas W. S. Morgan, King's College; Charles K. Bond, George D. Johnston, and Walter G. B. Tyrrell, Yasuzumi Saneyoshi, Frederick F. Calger, Bernard Kelton, and Henry B. Robinson, St. Thomas's Hospital; Herbert Larder and Paul Jackson, Westminster Hospital; William A. Russell, Walter Spencer, Arthur E. Huxtable, John Marriott, John H. Crocker, Walter H. Haw, Howard Davies, and Alfred Turner, Charing-cross Hospital; Edward J. Cave, Francis Cresswell, Thomas E. Lovegrove, Thomas W. Shore, John F. Steedman, and Arnold Lyndon, St. Bartholomew's Hospital; George M. P. Braine, William W. Linney, Percy W. Smith, William H. Cragg, and Albert E. Rook, Middlesex Hospital; Edgar E. Masters, Herbert E. Counsell, and George A. Johnson, Guy's Hospital; Alfred T. Masters, Charles H. Hall, and Edmund P. Cockey, St. Mary's Hospital; Thomas F. Gardner, Frank Hinds, Arthur F. Blagg, William A. Gostling, Arthur J. Drew, Alfred J. Turner, and Evan Williams, University College; Albert Martin and George H. Rodman, Guy's Hospital; William Bradbrook, Owen C. Jones, and James D. Llewellyn, London Hospital; Harry J. Thornton and Henry W. M. Kendall, Middlesex Hospital; Benjamin W. Thomas and Ernest Atkins, Charing-cross Hospital; Richard Andrews and John P. Glover, St. Thomas's Hospital; Horace H. Pinching, St. George's Hospital; Henry H. Wigg and Herbert R. Spencer, University College; Charles Childe and Charles T. Dornford, King's College; Frederick A. Rogers, St. Mary's Hospital; Edmund C. Pettifer, John R. Nunn, and Edward C. Sharpin, St. Bartholomew's Hospital, George H. Phillips, University College and Charing-cross Hospital.

[In the list published last week of gentlemen who passed the Primary Examination, the name "Arthur W. Davison" should have been Arthur Willan Dawson.]

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on April 7th:—

Anderson, Daniel Ellis, Harrington-square.
Dashwood, Edmund Samuel, Merrick-square, Borough.
Hodges, James, Henley-on-Thames.
Tibbles, William, Wayford-street, Battersea.

The following gentlemen also on the same day passed the Primary Professional Examination:—

John Bourne Berry and William Skilbeck Stables, Guy's Hospital; Ebenezer Thomas Smith, London Hospital.

THE Manchester Board of Guardians have made a grant of £50 to St. Mary's Hospital of that city.

A GRAND Fancy Fair and Tableaux Vivants will be held on the 19th inst. and following day, in aid of the enlargement of the National Eye and Ear Infirmary, Dublin.

THE Library of the Royal Medical and Chirurgical Society will be closed from Thursday evening, the 14th inst., until Tuesday morning next, the 19th inst.

A LADY has placed at the disposal of Dr. Greig Smith, one of the surgeons of the Bristol Royal Infirmary, a gift of £5, for providing additional comforts for the patients.

THE funds of the Poplar Hospital have benefited to the amount of £20 7*s.* 6*d.*, the proceeds of a concert given at the Town Hall, Poplar, last month.

CAMBRIDGE UNIVERSITY.—At a Congregation on the 7th inst., the degree of Bachelor of Medicine was conferred on Donald McAllister, M.A., St. John's College.

THE name of Mr. John Bowes, L.R.C.P. Lond., should have been included last week in the list of gentlemen presented at the levée on the 5th inst.

AT the Quarterly Meeting of the Directors of the Compassionate Branch of the Naval Medical Supplemental Fund, Sir W. R. Smart, K.C.B., M.D., Inspector General, in the chair, the sum of £37 was distributed among the several applicants.

THE difficulty of obtaining a proper supply of water has rendered useless the site recently purchased, at a cost of £5000, for the erection of a new lunatic asylum at Witham, Essex. The county magistrates have accordingly resolved to enlarge the present building, and leave the question of the appropriation of the fresh site to be settled on a future occasion.

AT the quarterly court of governors of Addenbrooke's Hospital, Cambridge, the attention of the medical officer was directed to the increase in the average length of time during which in-door patients are retained in the hospital.

WE are asked to state that the prizes offered by the Société contre l'Abus du Tabac, for the concours of 1880, will be awarded on May 8th next. For the concours of 1881, the Society offers one prize of 300 fr., three prizes of 200 fr., and one of 100 fr., also silver and bronze medals and books.

IN token of their obligation to Dr. Bell of Bradford, for the part he has taken in the investigation of the malady known as "woolsorters' disease," the woolsorters of the district are about to present to that gentleman an illuminated address and a handsome gold watch.

BEQUESTS AND DONATIONS TO MEDICAL CHARITIES. Mrs. Seymour, of Great Shelford, bequeathed £200 to the Addenbrooke's Hospital, Cambridge. Mr. J. W. Dod has offered, conditionally, £1000 towards relieving the Bristol Infirmary from its debt.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN.—The Prince of Wales, having to be present at the wedding of the Crown Prince of Austria in Vienna on May 10th, has desired that the festival dinner of the above hospital shall be postponed from the 9th to the 24th of May, in order that his Royal Highness may preside.

AMERICAN MUNIFICENCE.—It is stated that the Hon. T. A. Scott has presented 50,000 dollars each to the University and Jefferson Medical College, and 30,000 dollars to the Orthopedic Hospital, Philadelphia. Mr. George Seney, of Brooklyn, has given 200,000 dollars and a site worth 70,000 dollars, in addition to several other valuable lots, for the purpose of erecting and maintaining a new hospital in that city.

SIR PATRICK DUN'S HOSPITAL, DUBLIN.—During the past year there has been a deficiency in the income from non-payment of rents on Sir Patrick Dun's estate of £600, and in the year preceding of £400 from the same cause. Notwithstanding this diminution of income, not a single ward has been closed during the year, and the daily average of beds occupied amounted to 70. This result was, however, obtained only by the sale of certain securities.

SUITABLE premises have been taken at Wolverhampton for the purpose of establishing an Infirmary for Diseases of the Eye. The nearest hospitals for residents in the above-named town are situated at Birmingham and Shrewsbury, and the need in Wolverhampton of such an institution as that proposed has, it is stated, been long experienced. Subscriptions in aid of the project have been liberally supplied, and no doubt is felt as to a sufficiency of funds being forthcoming.

VACCINATION GRANTS.—The following gentlemen have received the Government grant for successful vaccination in their respective districts:—Mr. John H. Wraith, Darwen district of the Blackburn Union (third time). Dr. John Dearden, Church, near Accrington (fourth time). Mr. J. Wardleworth, Bury Union. Mr. W. Moxon, Matlock district of the Bakewell Union, Derbyshire. Dr. Fentem, Bakewell district of the Bakewell Union (second time). Mr. H. Laver, Colchester.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

ARMSON, C. G., L.F.P.S.G. & L.M., has been appointed Medical Officer and Public Vaccinator for the Yoxall District of the Lichfield Union.

AUSTIN, C., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer to the First South-Eastern District of the Freebridge Lynn Union.

BARNES, L. J. J., M.D., L.R.C.S.I., has been appointed Medical Officer to the Second B District of the Dartford Union.

BUTTERFIELD, H., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Bradford Urban Sanitary District.

CAFFYN, S. M., M.R.C.S.E., has been appointed Government Medical Officer for the District of Illawarra, New South Wales; Surgeon to the Albert Memorial Hospital, Mount Kiera Colliery, and Illawarra Lodge of Odd Fellows.

BEST COPY AVAILABLE

CLARE, E. S. N., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Third District of the Calne Union.

COLLIER, W., M.B., M.R.C.S.E., has been appointed Junior Resident Medical Officer to the Radcliffe Infirmary, Oxford.

CURETON, E., L.R.C.P.Ed., has been appointed Physician to the Salop Infirmary, vice H. N. Edwards, L.R.C.P.Ed., resigned.

DE WATTEVILLE, A., M.A., B.Sc., M.R.C.S.E., has been appointed Medical Electrician to St. Mary's Hospital.

DOUGHTY, W., L.R.C.P.Ed., has been appointed Medical Officer to the Wetherall District of the Carlisle Union.

FITZGERALD, W. A., M.D., L.R.C.S.I., has been appointed Assistant House-Surgeon to the Royal London Ophthalmic Hospital, Moorfields.

FRASER, D. A., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the Burnham Urban Sanitary District.

GROGONO, W. A., L.R.C.P.Ed., M.R.C.S.E., L.S.A.L., has been appointed, temporarily, Medical Officer to the St. George's-in-the-East Industrial Schools, vice Levick, deceased.

HINE, J. C., M.B., M.R.C.S.E., has been appointed Senior Resident Medical Officer to the Radcliffe Infirmary, Oxford.

LILLEY, G. H., M.D., M.R.C.S.E., has been appointed Assistant-Surgeon to Her Majesty's Convict Prison, Portland.

MAYER, D., M.B., C.M., has been appointed Medical Officer of the Newhills and Dyce Medical Association, vice Carlyle, resigned.

MILLES, W. J., F.R.C.S., L.R.C.P., has been appointed House-Surgeon to the Royal London Ophthalmic Hospital, Moorfields.

NEWSHOLME, A., M.B., M.R.C.S.E., has been appointed Surgeon to the City Dispensary, vice Kingdon, resigned.

NEWTON-CLARE, E. S., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Third District of the Calne Union.

PARTRIDGE, T., M.K.Q.C.P.I., M.R.C.S.E., L.S.A.L., has been re-appointed Medical Officer of Health for the Stroud Rural and Urban and the Bosley Urban Sanitary Districts.

RAMSAY, W., L.R.C.P.Ed., L.R.C.S.Ed., has been reappointed Medical Officer and Public Vaccinator for the Sherburn District of the Scarborough Union.

ROBSON, E. S., L.R.C.P.Ed., has been appointed Medical Officer to the Eastern District of the Durham Union.

SHEARS, A., M.D., M.R.C.S.E., has been appointed Medical Officer in the Civil Service of Tobago, West Indies.

[ERRATUM.—In the announcement last week of the appointment of Mr. Anderson Critchett to the Ophthalmic Surgeoncy of St. Mary's Hospital, the name of his predecessor was given as "Wharton Jones." It should have been, vice Haynes Walton.]

Births, Marriages, and Deaths.

BIRTHS.

BARRON.—On the 10th inst., at 13, Church-street, Southport, the wife of H. G. Barron, B.A. Oxon., M.R.C.S.E., L.R.C.P.L., of a daughter.

DUKE.—On the 8th inst., at Cornwall-road, Westbourne-park, W., the wife of G. Amos Duke, M.R.C.S.E., of a son.

DUNLOP.—On the 9th inst., at 50, David-place, Jersey, the wife of Dr. Dunlop, of a son.

KYNGDON.—On the 10th inst., at St. Leonard's, North Shore, Sydney New South Wales, the wife of F. H. Kyngdon, Esq., M.D., of a son.

LITTELJOHN.—On the 1st inst., at Hanwell, Middlesex, the wife of Saltern G. Litteljohn, M.B., of a son.

MARRIAGES.

DYER—STEPHENS.—On the 5th inst., at St. George's, Hanover-square, Thomas Birch Dyer, M.D., of Darenth, Kent, to Mary Jane, third daughter of Edward Stephens, of Morton-road, Canonbury.

GREVES—SOUTHAM.—On the 7th inst., at St. Giles's, Shrewsbury, Hyla Greves, M.B., C.M., of Liverpool, only son of E. T. Greves, of Carlton-road, Maida-vale, London, to Agnes Emily, fourth daughter of Thomas Southam, of The Hollies, Shrewsbury.

INKSTER—CLARKE.—On the 7th inst., at St. Stephen's, Hampstead, Macauley Inkster, M.D., of Sheffield, to Amy, eldest daughter of Henry Clarke, Esq., of Belsize-avenue, Hampstead.

JUKES—POYNTER.—On the 3rd ult., at Kurrachi, India, Andrew Jukes, L.R.C.P., Med. Missionary to the Beloches, Dera-Ghazi-Khan, son of the late Rev. M. R. Jukes, to Anna Jane, second surviving daughter of Samuel Poynter, of Crouchmans, North Shoebury, Essex.

DEATHS.

CRELLIN.—On the 8th inst., at Parkside, Richmond, Surrey, Horatio Nelson Crellin, M.R.C.S.E., aged 82.

HULKE.—On the 10th inst., suddenly, at Admiralty House, Deal, Frederick Thomas Hulke, M.B., J.P., aged 47.

WATCHORN.—On the 13th inst., at Sandfield House, Nottingham, Isaac Watchorn, M.D., aged 48.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, April 13th, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
April 8	30·07	E.	44	41	87	52	32	..	Bright
,, 9	30·08	E.	45	42	88	57	38	..	Bright
,, 10	30·06	S.E.	49	45	87	60	37	..	Bright
,, 11	29·87	S.E.	51	48	82	60	40	..	Hazy
,, 12	29.91	S.W.	50	50	82	59	46	·11	Raining
,, 13	29·89	S.	55	51	92	66	48	·07	Hazy

Medical Diary for the ensuing Week.

Monday, April 18.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

Tuesday, April 19.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

PATHOLOGICAL SOCIETY OF LONDON.—8½ P.M. The following specimens will be shown:—Cylindroma of the Popliteal Space; Specimens of Rectal Cancer; Villous Polyp of the Bladder; Liver Abscess following Dysentery; Cirrhosis of Liver in a Child with Congenital Hydrocele; Fractured Cervical Spine; Two Cases of Intestinal Obstruction; Heart with Calcareous Plates; Sarcoma of Kidney from a Child; Gangrene of Lung following Amputation of Tongue (card); Heart with Stenosis of Tricuspid Valve; Multiple Sarcomata of Skull.

Wednesday, April 20.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1 P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.—7.45 P.M. Council Meeting: "Casual Communications."

HUNTERIAN SOCIETY.—8 P.M. Mr. F. Treves, "On the Diagnosis and Treatment of Scrofulous and Lymphatic Glands."

Thursday, April 21.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

HARVEIAN SOCIETY.—8½ P.M. Mr. Henry Morris, "On some Cases of Fibrous Polypi of the Nose and the operative treatment of them."—Mr. Teevan, "On Difficult Micturition from Prostatic Disease."

Friday, April 22.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

QUEKETT MICROSCOPICAL CLUB.—8 P.M. Mr. T. Chartels White, "On the Histology of the Gustatory Organs of the Rabbit's Tongue."

CLINICAL SOCIETY OF LONDON.—8½ P.M. Dr. W. J. Tyson, "On a Case of Cross-legged Progression."—Dr. W. Stokes (Dublin), "On Cases of Excision of the Tongue."—Dr. Whipham, "On Aortic Aneurism Demonstrated by the Laryngoscope."—Dr. T. Stretch Dowse, "On a Case of Anorexia Nervosa."

Saturday, April 23.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

A WHOLESALE DISTRIBUTION OF COFFINS.

THE Municipal Special Committee of Hygiene entrusted with the difficult task of preserving public health at Rome allude in their last monthly report to a form of generosity which is not altogether encouraging. We are told with some unction that, though there were only 732 deaths in the month of February, no less than 525 coffins have been distributed gratuitously to the poor! Further, we are informed that the number of these sinister donations was greater during the preceding month of December. As a contrast, we find that the assistance in medicaments given was equivalent during the month to only £38. The parish, or municipal, doctors attended 1386 poor, of whom 950 were already under their care during the previous month. Thus we find that measures for the interment of the dead rather than the preservation of the living hold the most prominent place in the report. Yet we should mention that something has been done with respect to house inspection; 301 dwellings were visited, and in 81 cases improvements in drainage, &c., were enforced. Further, 268 kilogrammes of bad meat were seized and destroyed during the month. Still, in spite of this good work, the knowledge that the Government has to distribute annually more than six thousand coffins to the poor inhabitants of the Eternal City is not calculated to enhance the attractions of Rome.

MULTIPLE ABSCESS OF THE LIVER FOLLOWING DYSENTERY.

To the Editor of THE LANCET.

SIR,—I quite agree with your Indian correspondent in THE LANCET of March 26th as to the almost universal fatality of multiple liver abscess and the little hope the operation of aspiration offers to the practitioner practically conversant with the relations of hepatitis and dysentery.

After a preliminary experience in Bengal, I started the subject at Secunderabad, which is the school in which to accumulate such knowledge. When attached to the 107th Regiment in 1874-5 my friend, Surgeon-Major W. H. Corbett, and I had some very successful cases of recovery after aspiration. On one occasion, indeed, when a first operation was likely to end badly, in consequence of air having accidentally entered through the separation of a tube, at a subsequent operation in January, 1875, finding that there was a discharge of highly offensive pus, I washed out the cavity of the abscess repeatedly with a one in forty solution of carbolic acid until the liquid came out of the aspirator as clear as when injected, and, closing the wound to exclude the air, I had a good recovery.

I had the pleasure of meeting another of my old cases last year in which I had been obliged to operate a second time. He was still in the ranks. These cases were those of the large single abscess, the consequence of hepatitis pure and simple, and occurred in a regiment which had been a long time in the country.

When attached to the 12th Lancers, in 1877-8, I had an opportunity of studying the effect of the climate on a young regiment fresh from England. Though many operations for the relief of hepatic abscess were attempted, they all failed, as the cases were those of multiple abscess consequent on dysentery. Nature performed two operations successfully; but even with her the cases were those of abscess following uncomplicated hepatitis; I question if she ever does much in the way of successfully evacuating the multiple abscess which follows chronic dysentery. The post-mortem appearance is enough to negative such an opinion. It also afforded me complete insight into the cause of the failure of the operations.

JOHN R. PURDON, M.B., Surgeon-Major.

Guernsey, March 27th, 1881.

THE WEATHER OF 1880.

MR. EDWARD MAWLEY, F.M.S., has published for 1880 a work on the weather in the neighbourhood of London, similar in character to that which he issued last year on the weather of 1879, and which we commented upon very favourably. This work will prove equally as useful as the previous one, and observers—medical and other—will find it a welcome addition to their works of reference.

Mr. A. T. Searle.—We cannot recommend any physician or surgeon in particular.

Mr. F. L. C. Richardson.—We regret we have not space for the insertion of the questions.

Constant Reader.—Are the questions specified worse than the others? We think the whole thing bad, but we doubt whether the interrogations to which allusion is made are mischievously suggestive.

MEDICAL MEN AND RAILWAY COMPANIES.

To the Editor of THE LANCET.

SIR,—The judge decided a short time since in the case of Vance v. Tilbury Company that a servant cannot pledge his master's credit. Nevertheless the jury gave a verdict for five guineas, which carried costs, in consequence of the secretary of the company admitting he knew of the attendance by Dr. Vance on one of their firemen. It was a well fought case, and if the Employers' Liability Act had been in force matters might have been different. I believe that if "M.D." was to sue under the Employers' Liability Act he would succeed, as a station master is the recognised superintending servant of the company, and therefore has power to pledge his master's credit when it becomes incumbent upon him to protect the lives of passengers.

I will be happy to give my mite to settle so important a matter. I have been much engaged in such cases, and, indeed, with the exception of the one just named, always found railway companies pay fairly and generously. The company had no right to demand a fee from the relatives. Medical men give up much time gratuitously, but a company like the London, Chatham, and Dover Railway Company seem not only to ask for gratuitous advice, but add insult to injury to "M.D." in offering half a fee.—I remain, Sir, your obedient servant,

JOHN VANCE,
Retained consultee by various firms under the Employers' Liability Act in Canning-town and Woolwich district.

Plaistow and Victoria Docks, April 11th, 1881.

To the Editor of THE LANCET.

SIR,—I think your correspondent, "M.D.," has a just right to complain, and that he has a legal claim on the London, Chatham, and Dover Railway Company. Some time ago I was sent for to the station here, an *employé* of the Great Eastern Railway Company having met with an accident, and superintended his removal to the hospital by the next train. The company forwarded me (unasked) a guinea through their station master, with their thanks for my promptitude in attending.

I am, Sir, yours faithfully,

Newport, Essex, April 9th, 1881. HENRY J. BUCK.

"SYPHILIS AND LOCOMOTOR ATAXY."

To the Editor of THE LANCET.

SIR,—In an annotation in last week's LANCET attention is directed to a recent communication published by Erb regarding the relation of syphilis to locomotor ataxy. The facts there recorded, as well as by other writers, no doubt justify the conclusion that there must be an etiological connexion between syphilis and locomotor ataxy. But I believe that another precursor to tabes dorsalis is chronic alcoholism, and although it may not prove to enter so largely into the etiology of the disease, yet I have been of opinion for some years that chronic alcoholism plays no unimportant part in a number of these cases. I have had under treatment within the last two or three years four cases of locomotor ataxy, in which all the parents had been for years addicted to the consumption of stimulants in very large quantities, and in whom no symptoms of syphilis, as far as I could learn, ever presented themselves. I merely mention this matter as, although it may be known to some, it is omitted, so far as I am aware, in all standard works on the subject.

I am, Sir, your obedient servant,

Dublin, April 12th, 1881. CHARLES H. ROBINSON, F.R.C.S.I.

To the Editor of THE LANCET.

SIR,—In an annotation on the above subject, which appeared in THE LANCET of April 9th, you mention the names of Dr. Gowers and Professor Erb in connexion with it. May I be permitted to say that the first to call attention to the frequent dependence of locomotor ataxy upon syphilis was Professor Fournier, of Paris, who in 1876 delivered a course of lectures at the Hôpital St. Louis to prove this connexion between the two diseases. These lectures were published as a *brochure* in the same year. Professor Fournier based his views on the subject upon eighty cases of locomotor ataxy in which there was a previous history of syphilis, twenty-four of these cases having been under his own care. He found that 80 per cent. of ataxic patients had suffered from syphilis, which is nearly the same proportion as was found by Professor Erb amongst his patients.—I am, Sir, yours faithfully,

Wimpole-street, W., April 9th, 1881. W. ALLEN STURGE.

"CASES OF PNEUMONIA TREATED IN THE HOSPITAL AT CABUL."

To the Editor of THE LANCET.

SIR,—Having read Dr. Morris's account of thirty-five cases of pneumonia treated in the hospital at Cabul in your issue of March 26th, I hope he will excuse my making a few remarks on them. He ascribes them to overwork, extreme cold and want of sleep; describes the pneumonia as catarrhal and complicated with pleurisy, remittent fever, and meningitis. Now, I would suggest that the cases might have been caused by the specific blood poison of whooping-cough, which might have been dormant in the whole of the men affected until aroused into activity by the causes mentioned, or only developed in one or two of the men and communicated to the others by contagion. The variety of pneumonia is that belonging to whooping-cough, the complications the same as mentioned in my letter on the Welbeck poisoning in your issue of March 12th.

I will just give particulars of one case which seems to me to connect that form of pneumonia with whooping-cough. On Friday, November 29th, 1878, I was sent for in the evening to see A. H——, who was said to have a severe cold. As I had been past the house several times in the course of the day I sent a saline mixture, with tartrate of antimony, and saw him next morning, Saturday; he was up, but look flushed and feverish, and complained of having had chills, thirst, and headache. I examined his chest carefully and found no particular morbid sound, respiration rather quicker than natural, and at the posterior and lower part of each lung the respiratory murmur was rather louder and slightly rough. I ordered mustard plasters, to be followed by hot poultices; the next day, Sunday, December 1st, I found a mucous râle over the whole lower and back part of both lungs. I applied blisters, continued the poultices and medicine; but, to epitomise the case, the inflammation gradually spread through the whole of both lungs, fortunately for him the parts first attacked improving as the disease advanced; the delirium also was very violent, particularly at night. On Sunday, December 8th, there was an improvement, and by the following Friday, December 13th, he was convalescent.

I will mention here that in whooping-cough the exacerbations take place generally from 4 to 8 P.M., when there is an increase of cough and general malaise; from 8 to 10 or 11 P.M. there is often a slight remission; afterwards a bad night till 4 or 5 A.M.

I generally visited A. H—— during his convalescence about 6 or 7 P.M., in order to observe his wife's health; she had nursed him night and day and had not been out for some time. On December 27th, as I came to the door, I heard some one coughing violently. I went in and found her standing holding by the table in a regular fit of whooping-cough; she was coughing until she seemed to empty her chest, then taking a long respiration with the "whoop"; finally it ended in vomiting. As she had not been out the contagion evidently came from her husband; but from her having been constantly in the warm rooms it had assumed the chronic form; had she been exposed to cold she would most likely have had pneumonia, the same as her husband.

I am, Sir, yours very truly,

New Whittington, April 6th, 1881. JOHN COLSTON.

General Practitioner.—Assistants, like everybody else, should have a holiday, but a principal who cannot afford one for himself may not be able to afford one for his assistant.

TOYS FOR CHILDREN IN SMALL-POX AND FEVER HOSPITALS.

To the Editor of THE LANCET.

SIR,—There are at the present time an unusually large number of children in the Metropolitan Hospitals for small-pox and fever. These little ones much need toys and books. When they get better they cannot go home for many weeks, for fear of their giving infection to others; nor can their fathers, mothers, and friends visit them in the hospital. During these tedious weeks the children much need some amusement in the somewhat uninteresting wards. One matron from a small-pox hospital writes:—"We shall be most thankful to receive a grant of toys and books for our poor patients, as it is a thing I very much deplore that we never get anything of the kind sent to us, as other hospitals do. We generally have 140 patients, one-third being children, and I regret to say that we have no library; and from the nature of the diseases which we receive we are obliged to keep our patients (as well as *employés*) so isolated that they stand in need of amusement more than general hospitals, which have constant visitors to their wards." Another matron of a fever hospital writes:—"We have nine wards open, and the amount of pleasure your present has given you can hardly imagine; poor little sick babies, forgetting their ailments, put up their hands for a toy. It has been a delightful morning to me, giving out the toys, books, &c., and I cannot tell you how grateful I feel to you for bestowing so much pleasure on our poor patients." Surely some of those happy children who can be nursed at home, should they fall ill, will be glad to send their old toys and books to the poor little children who are removed from their homes half across London, and have to spend several weeks in a large hospital amongst strangers. Any gift of toys or books will be received by Mrs. Ward, 36, Broadhinton-road, Clapham, S.W.; or money to buy such can be paid to the Hospital Book and Toy Fund (Treasurer, H. S. Thornton, Esq.), at Messrs. Williams, Deacon, and Co., 20, Birchin-lane, E.C.—I remain, Sir, yours, &c.,

J. ERSKINE CLARKE, Vicar of Battersea.

Broughton.—1. There is an account of lime-fruit trees given in Bentley and Trimen's "Medicinal Plants," No. 52. "It grows wild in Jamaica, Tahiti, and elsewhere. Lime trees are also cultivated in Jamaica, Dominica, and largely of late years in Monserrat of the Antilles."—2. Our correspondent had better apply to Dr. Sansom concerning the "ox-blood."

X. Y. Z.—The custom varies. Our correspondent should ascertain what it is in the district in which he contemplates settling.

Lulu.—Nothing less than excision.

ENGLISH MINERAL WATERS.

To the Editor of THE LANCET.

SIR,—I have been much interested by the letters which you have published on the above subject. I am a miserable dyspeptic, who finds annually immense relief from the waters of Homburg, but I confess I should gladly be able to dispense with the fatigues of a long and not very interesting journey. Can any of your correspondents suggest any English waters within a convenient distance from town as an efficient substitute for and similar to the Homburg waters in chemical composition and therapeutic action?—I am, Sir, yours, &c.,

April 11th, 1881. BRUNNEN.

DRUGGISTS' CHARGES.

To the Editor of THE LANCET.

SIR,—The counter-practice of druggists has lately been complained of as injurious to legitimate medical practitioners. This has chiefly arisen from the "general practitioner" (I prefer "surgeon") throwing dispensing into their hands.

Forty years ago, when I commenced my professional life in a small country town, surgeons not only dispensed their own prescriptions, but also those of consulting physicians, with very considerable profit, and little trouble. The drug-sellers did a modest business. Now they are pharmaceutists—great swells—grown rich—live in fine houses away from their shops, &c. The surgeons have become less in number one-half; still attend clubs at 3*s.* per annum, and midwifery at 10*s.*, and 15*s.* in the country. The large majority of the population are poor, and can badly afford to pay the surgeon's fee for attendance, and the drug bill in addition. The consequence is they go to the educated and examined pharmaceutists for their minor ailments to escape the additional expense they are now put to.

All this is, in my judgment, a mistake. No family attendant should be above sending out his own remedies. It is pride interfering with pocket. The remuneration for his brain-work goes into the pocket of the mere drug-seller. Now, a word about this same drug-seller. A lady friend of mine (a widow), of small means, had occasion to consult an eminent oculist, who prescribed a ten-ounce lotion of solution of lead, borax, and almond water. For this simple lotion she was made to pay 6*s.*

I am, Sir, yours happily,

April 5th, 1881. A RETIRED SURGEON.

SUCCESSFUL REVACCINATION AFTER NATURAL COW-POX.

To the Editor of THE LANCET.

SIR,—I would suggest to Dr. Battye—1st, that the girl he mentions had not been efficiently or sufficiently vaccinated in infancy, as proved by only one mark remaining; 2nd, that the fact of her having genuine cow-pox is extremely problematical; and, 3rd, that the fact of the success of his vaccination should rather point out to Dr. Battye the truth of my first two suggestions. With your permission I will enter more fully into the subject of vaccination and cow-pox inoculation on a future occasion.—I am, Sir, your obedient servant,

Bucks, April 12th, 1881. THOMAS NEWHAM, M.D.

"DISLOCATION OF SHOULDER-JOINT AND DEATH FROM CHLOROFORM."

To the Editor of THE LANCET.

SIR,—In THE LANCET of March 26th (page 525), Mr. Lawton describes a method of reducing dislocation at the shoulder-joint, which might appear new. Will you allow me to state that twenty-six years ago I tried the same plan, and also with the jack-towel under both arms, but the lateral pressure against the ribs was so extremely uncomfortable, if not actually painful, so that I afterwards made a little apparatus which, when used, has proved most efficient.

It is simply the top rail of a common kitchen chair, with a couple of straps attached to it so as to fix it on the back below the shoulders (as in the sitting position on the chair), and the jack-towel put round it. This was exhibited at the meeting of the British Medical Association in Leeds, July, 1880, under the name of "A yoke for the back used in dislocation at the shoulder-joint," and can be obtained from Messrs. J. J. and W. Wood, surgical instrument makers, Kigg-street, Manchester.

I am, Sir, yours, &c.,

Kendal, April 2nd, 1881. ROBT. T. LEEMING.

To the Editor of THE LANCET.

SIR,—I succeeded a short time ago in reducing with the greatest ease a dislocation of the shoulder after the administration of the nitrous oxide gas. The time occupied was just one minute—forty seconds for the gas, and ten seconds for the reduction. The shoulder had been twenty-four hours unreduced. Why give chloroform in such cases?

I am, Sir, yours, &c.,

Bristol, March 29th, 1881. ROBERT W. ELLIS, Surgeon.

FIRE-PROOF ASYLUMS.

THE *Boston Medical and Surgical Journal* of March 24th has an article on fire-proof asylums for the insane and the means at the disposal of the authorities of such institutions for the extinction of fire. It appears that within the past twenty-five years two conflagrations have occurred at the Vermont Asylum, one at the New York State Asylum at Utica, one at the Kansas State Asylum, whilst the State institutions in Ohio, West Kentucky, Minnesota, and Danville (Penn.) have been almost totally destroyed, and a considerable number of lives lost. The writer, amongst other suggestions, advocates the appointment of a State fire inspector, who should be held responsible for the completeness of the arrangements to meet so terrible an emergency as fire in an establishment devoted to the care of the insane.

Ars celare artem.—We shall consider the question, but there is a great difference between the subjects.

Mr. C. Burland should apply to the Dean of the University for information.

THE NOTIFICATION OF INFECTIOUS DISEASES.—THE JARROW CASE.

To the Editor of THE LANCET.

SIR,—Being defendant in the case tried in the police-court here under the Local Improvement Act, 1878, I trust you will find space for a few remarks in addition to those which have already appeared in your journal.

The Act defines "infectious disease" as meaning small-pox, cholera, and fever, and enacts that the medical practitioner in attendance on such a case shall, under a penalty of five pounds, send to the corporation the name of the patient, &c., and the "nature of the disease."

Whilst bearing in mind the evident intention of the Act, it surely seems more reasonable to consider small-pox, cholera, and fever as intended to indicate the kinds or types of disease to be reported infectious, excluding, for example, whooping-cough, &c., which, although infectious, it was probably deemed unadvisable, in the meantime, to have brought prominently under the notice of the local sanitary authority, than to hold by an interpretation which would exclude diseases equally as infectious and fatal (measles, diphtheria, &c.) as those to be reported. Besides, when a case is reported "infectious disease," its nature is sufficiently indicated to enable the sanitary authority to adopt the precautions necessary. Such a mode of reporting is also a means of preventing a possible mistake in diagnosis from being brought prominently before the Council and the public, and possibly the author of the report from being subjected to injudicious criticism, which might prove injurious to his professional reputation. That such a result is likely may be inferred from the evidence in this case.

Not being permitted to give evidence, my solicitor submitted that it was impossible to report anything but infectious disease, as I had not ascertained its precise nature. In opposition to this, the sanitary medical officer stated on oath that on first seeing the patient he had no difficulty in diagnosing the disease, and that I could not possibly have had any difficulty on the previous day, and, in addition, that he never experienced any difficulty in diagnosing a case.

True, as stated, we are paid for our reports, and some of our councillors say that the interpretation indicated above is contended for, so that a few more diseases may be reportable, and a little more money made by it. After that, the almighty dollar, as a means of influencing men's opinions, must give way to the "bob;" but it will probably be found out by-and-bye that an Act of Parliament, even when backed by a shilling fee for each report, may utterly fail in compelling medical men generally to be saddled with the position of specialist in diagnosis, when a sanitary medical officer is employed for the purpose of supplying such information.

I am, Sir, yours, &c.,

Jarrow-on-Tyne, April 4th, 1881. W. WHAMOND.

Mr. J. Browne.—Our correspondent seems to be labouring under a misapprehension. Officers of the A.M.D. are put in medical charge of native troops when the P.M.O. considers it necessary, but they do not receive less than medical officers of the Indian service employed in this manner, if of the same rank.

Auge.—We fear we cannot promise early insertion of the paper.

"CHRYSOPHANIC ACID IN PSORIASIS."

To the Editor of THE LANCET.

SIR,—I do not think the point raised by a "Glasgow Student" should be lightly passed over, or that anyone should condemn it without testing the effects of chrysophanic acid to the full. I have used chrysophanic acid ointment from five grains to two drachms to the ounce, and have had the good fortune never to have had a case of psoriasis where its beneficial effects were not apparent when directly applied.

In many cases also where I have applied it partially without any application to other affected parts I have been much struck with the disappearance of the disease from the parts to which there had been no direct application; a result I can explain in no other way than by the constitutional effects of chrysophanic acid.

One effect I have noticed on several occasions in the long-continued use of chrysophanic acid is congestion of the conjunctivæ, no matter where the ointment may have been applied, if in sufficient quantity. Is not this a constitutional effect? I would ask the writers in last week's LANCET if there is not a possibility of chrysophanic acid retaining its true qualities when absorbed into the system by inunction, while it may be changed and destroyed by the secretions when taken internally.

I am, Sir, yours, &c.,

Glasgow, April, 1881. ROBERT LEES, M.B.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Moxon, London; Dr. Thomson, Bournemouth; Dr. Dupré, London; Mr. Buck, Newport; Dr. Humphry, Cambridge; Dr. Nelson Gwynn, Sheffield; Mr. Newstead, London; Mr. Eaton, Grantham; Dr. Ward Cousins, Portsmouth; Dr. Bramwell, Edinburgh; Mr. Bowes; Dr. Fenwick, London; Dr. Playfair, London; Dr. Ryott, Newbury; Dr. R. Barnes, London; Mr. Burland; Dr. Biedert, Hagenau; Mons. Masson, Paris; Dr. Prickett, London; Mr. Kesteven, Holloway; Mr. Coathupe, Bristol; Mr. Loypoldt, New York; Mr. E. A. Cook; Mr. Leeming, Kendal; Mr. A. Sangster, M.B.; Dr. Donkin, London; Dr. Newham; Dr. Logan, Edinburgh; Dr. Symes, Halifax; Dr. Mackenzie, Burnley; Dr. Neill, Ryde; Dr. Penhall, St. Leonards; Mr. W. R. Rendle, London; Dr. Vance, London; Dr. Hewan, London; Mr. Wilson, London; Mr. Reckitt, Skegness; Mr. Hays, London; Mr. Abbott, Braintree; Mr. MacDonagh, Clapham; Dr. Sturge, London; Dr. Page, Kendal; Dr. Waller; Mr. Morris, London; Mr. Wallis, London; Dr. Kidd, London; The Assistant-Secretary of the Law Amendment Society; A. T. S.; Ars Celare Artem; A. B. B.; Brunnen; A. E. S.; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Pierce, Liverpool; Dr. Gramshaw, Lowestoft; Mr. Molyneux, Upholland; Miss Clark, Birmingham; Mr. White; Miss Gabaron; Mr. Turner, Worcester; Mr. Hooper, London; Dr. Ferris, Uxbridge; Mr. Rutter, Notting-hill; Mr. Young, Chilton-Polden; Mr. McAdam, Glasgow; Mr. Komm, Corsham; Mr. Lennant, Durham; Mr. Sawyer, Darlington; Messrs. Keith and Co., Edinburgh; H. S., Huddersfield; Medicus, Widnes; Medicus, Manchester; Medicus, Liverpool; Negotium; J. R.; Sigma; X. Y.; T. G., Amersham; H. J., Aberystwyth; L. C., Bath; M. G., Keighley; J. B., Exeter; L.R.C.S.I.; &c., &c.

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